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# Aden:

## Commercial Capital of Yemen

LOCAL ECONOMIC DEVELOPMENT STRATEGY

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# Foreword

Since 2000, with the issuance of the Local Authorities Law No. 4, Yemen has been pursuing an ambitious decentralization agenda. This agenda aims to delegate greater fiscal and administrative authority to local governments and to give communities –public leaders, residents, and investors – more control over the economic and social development of their cities and towns.

To date, city development strategies (CDS) have been initiated in four of Yemen’s largest urban areas – Sana’a, Aden, Hodeidah, and Mukalla. With support from Cities Alliance and The World Bank, the CDS process in each of these cities has brought together public and private sector leadership to assess the strengths and weaknesses of the city, think strategically about opportunities for equitable economic growth, develop a long-term vision, and draft a prioritized action plan. In all four cases, the CDS process has been coupled with revisions to the cities’ master plans to ensure a strong link between economic development plans and infrastructure.

The benefits of the CDS process go far beyond the writing of the CDS document. To create a long-term vision for the city required the participation of a variety of public, private, and civil society leaders who do not often have the occasion to come together to discuss the challenges and opportunities facing the city. The structure for cross-sectoral communication provided under the umbrella of the CDS has had a lasting effect in terms of helping to align the city’s social, economic, and environmental interests. In addition, with the financial support under the CDS, local leaders had access to much needed technical support and expertise focused on issues of local concern.

The purpose of this publication is to summarize the main outcomes of the studies, discussions, and strategic planning accomplished during Aden’s CDS process. Moreover, it aims to serve as a guide for the city’s local economic development that is presented in a manner that is accessible to a broad audience.

**H.E. Mr. Abdel Kareem Al-Arhabi**  
Deputy Prime Minister for Economic Affairs  
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Mr. Taha Ahmed Ghanim, Governor of Aden (1996-2003)  
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Mr. Ahmed Al Kohlany, Governor of Aden (2006-2008)  
Aden Governorate Local Council

Mr. Mohamed Zemam, National Coordinator of the Port Cities Development Program (2002-2008)  
Mr. Jamil Mahmoud, Director of the Aden Local Economic Development Department  
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Ecorys, "Vision and Strategy for the Aden Free Zone." June 2008.

Halcrow, "Revised Master Plan for Aden." March 2006.

Miller, Kaia. "Building the Competitive Advantages of Aden: Designing and Implementing a Cluster-based Economic Development Strategy." Aslan Global, 2002.

Shawa, Ala'edeen, "Potential Contributors to Aden's Competitiveness: A Review of Clusters & Business Support Service Networks." December 2002.

World Bank, "Challenges Facing the Aden Free Zone and Benefits of Special Economic Zones." October 2007.





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# INTRODUCTION

*Aden thinks strategically about Local Economic Development.*



Aden's position at the tip of the Arabian Peninsula near the entrance to the Red Sea, only four miles from the main East-West shipping route, and its natural deep-water harbor have historically made the city one of the busiest refueling stations in the world, servicing most ships that pass through the Suez Canal.

Aden is an ancient city and its great status as a trading center dates back to the seventh century BC when it served as a station for merchants of spice and incense and a passageway for caravans. In modern times (1839-1967), Aden was the primary trading post in the Arab region for the British and ranked fourth among the world most important ports. At its peak, in 1950, the number of vessels that entered the port of Aden reached between 40 and 50 a day, putting Aden in second place after New York as the busiest port.

After the unification of Yemen in 1990, and to capitalize on Aden's location advantage, the city was declared a free trade zone, which further enhanced its role as the economic and commercial capital of Yemen. Since then, the Government of Yemen has invested significantly in the expansion of port and

airport facilities, and in upgrading the city's infrastructure. The government's flagship investment was the Aden Container Terminal (ACT), which opened for business in March 1999. The ACT resulted in a significant expansion of activities in the Port of Aden. Indeed, the declaration of Aden as a Free Zone, the construction of ACT, and the infrastructure investments have been met with growing interest from both national and international investors to locate operations in the city.

In December 2001, Aden began the formulation of a Local Economic Development Strategy. The objective of the Strategy is to support private sector productivity and improve the quality of life in the city. In the last few years, significant attention and study has been directed at the city of Aden – a revised and updated master plan, an assessment of the local economy, a clusters analysis, and a priority economic investment plan. Through a participatory process, and with input from industry experts, Aden assessed its existing economic and physical assets, and identified three strategic areas with high growth potential – maritime, hospitality and tourism, and manufacturing industries.





# EXECUTIVE SUMMARY

*Aden is poised to assume its role as the commercial capital of Yemen.*

Aden has a number of widely recognized unique assets, which are critical inputs to its emerging strategic positioning within Yemen and the region. Most notable is its natural deep-water harbor on the Red Sea, striking landscapes and distinctive topography, abundance of raw materials, and rich urban heritage. In addition, the residents of Aden are known for their hospitable nature and openness to diversity..

## ADEN TODAY

Today, leadership in Aden, both public and private, are motivated to create prosperity. Despite a broad portfolio of assets and existence of key infrastructure, the city must address constraints that are holding back economic growth.

### **Population, Employment and Poverty**

One of the most significant socio-economic challenges that Aden confronts today is unemployment. It is estimated that there are some 128,000 employees and self-employed individuals in Aden, the majority of which work for the public sector.<sup>1</sup> The second largest employer is wholesale and retail trade, followed closely by transport and communications and education, respectively.

Within the Yemeni context, Aden has lower than average urban poverty, ranking sixth out of the twenty-one governorates. In 2006, an estimated 17% of urban families fell below the poverty line, versus 15% in Sana'a and 21% nationally.<sup>2</sup> It was estimated that 92.5% of households are connected to the power system, 92% have access to running water, and 78% of households are connected to sanitary services.<sup>3</sup> However, the city suffers from high levels of unemployment. In fact, the official unemployment rate is estimated at 28%, about double the national average.<sup>4</sup>

### **Land, Infrastructure, and Urban Development**

Aden has much of the basic infrastructure required for businesses to compete, with a few areas requiring major investment. The city is spread across 6,980 square kilometers and is composed of eight districts, each with its own commercial center. The city developed on a peninsula and subsequently expanded along the coast, following the main radial route inland.

Like the rest of Yemen, there are large gaps in basic infrastructure. However, Aden has a number of infra-

structure offerings that are attractive to businesses in key clusters, such as an international airport, sea-port and container terminal. The transport system in Aden is a major driver of the local and regional economy where land, sea and air transport modes all play significant roles and maintaining and enhancing the physical linkages between them is a crucial objective for the efficient functioning of the city.

### **Local Economy**

The city of Aden is differentiated from the rest of the country in several important ways. First, Aden has a deep and naturally protected seaport. Second, the immediate region has an abundance of raw materials. Finally, Aden is well known for its hospitable culture and rich urban and physical heritage. These characteristics, combined with the presence of the container terminal, international airport, and Aden Free Zone, comprise the foundation for the future growth of the maritime, hospitality and tourism, and manufacturing industries in the governorate.

### **Business Climate**

Recurring business problems and frustration at the lack of progress since unification have created a strong desire for action and results on the part of both public and private sector leaders in Aden. The city has a long history of international trade, but is currently dominated by the public sector and still struggling to shed the legacy of communism. Business leaders and local authorities agree that the rules and regulations governing the private sector are in need of strengthening, especially in relation to customs and business licensing and registration.

While there is a Chamber of Commerce and Industry in Aden, cluster-specific organizations are weak or absent. To spur innovation and ensure a pipeline of trained labor, there is also a need for better communication and coordination among universities, the private sector, and the government.

Finally, the emerging institutional architecture and process for change in Aden needs further development. The quality of dialogue, particularly between the public and private sector needs to improve, and the responsibilities of the private and public sectors need to be articulated, acknowledged, and pursued. While the government needs to do everything it can to help the private sector, the businesspeople of Aden need to accept more responsibility for improving the region's economy.

1 Aden Local Economic Development Department

2 Yemen Poverty Assessment, The World Bank 2007

3 Central Statistical Office, Statistical Yearbook 2006

4 Central Statistics Office



## ADEN TOMORROW

The President of Yemen has committed his attention to Aden as the “economic growth pole” for the country. To realize this vision, the city will build on its existing unique assets and strengths, differentiate itself from other regions, grow new economic clusters, and strengthen the existing clusters.

### **Clusters of Competitiveness**

Cultivating economic growth clusters is a long-term endeavor involving multiple private and public sector partners. Successful local economic development strategies do not pick winning clusters, but build on the surrounding region’s inherited assets (e.g. geography, climate, population, research centers, companies, governmental organizations) to create specialized economies that differ from other regions and offer advantages to local companies. In cultivating regional clusters of competitiveness, however, established and already emerging clusters offer the greatest prospects for short term. Based on Aden’s unique assets and relative strengths, clusters that present the greatest prospects for near term productivity growth include:

- Maritime;
- Hospitality and Tourism; and
- Manufacturing.

### **Implementing the LED Strategy**

A participatory process in which groups, including private and public sector leaders, and representatives of relevant institutions define priorities and then design solutions is the recommended path to sustained productivity growth. The Local Economic Development Strategy embodied in this document represents a shared economic vision. To build momentum off of this foundation, a strengthened Aden Local Economic Development Department (LEDD) could facilitate cluster-specific workshops, organize high-level policy dialogue, and commission additional studies of promising clusters. The following, phased action plan was developed during the strategy making process and reflects input from public, private, and civil leadership in Aden.

#### Stage 1:

- Establish an Organization for Economic Development that Coordinates the Growth Process;
- Ensure Strong Leadership from a Diverse Group of Aden’s Leaders; and
- Re-Initiate and Sustain a Healthy Rate of Growth in Transshipment Volume.

#### Stage 2:

- Invest in Specialized Research Institutes and Cluster-Specific Institutions for Collaboration;
- Trigger Growth in the Maritime Cluster; and
- A Reduction in Shipping Cost and an Increase in the Number of Shipping Lines Calling on Aden.

#### Stage 3:

- Stimulation of Growth in Import/Export Reliant Manufacturing Activities; and
- Enhanced Incentive for Warehousing and Re-Export Functions to Locate in Aden.

#### Stage 4:

- Mobilize Growth in other City-Based Linkage Services (e.g. manufacturing, packaging, banking, maintenance services, etc.);
- Growth in Passenger and Cargo Throughput at the Airport; and
- Stimulation of Growth in the Hospitality and Tourism Cluster.

#### Stage 5:

- Triggering the Growth of Strategic Sectors (i.e. IT and supply chain management).

### **Infrastructure for Growth**

Strengthening the Maritime, Hospitality and Tourism, and Manufacturing clusters requires a solid physical growth plan and targeted investments in infrastructure. The Aden Master Plan 2025 was completed in 2006, guiding the physical development of the city in line with economic and social goals. The Master Plan emphasizes ease of access to the core economic infrastructure of the city, specifically the port, airport and free zone, as the physical map to economic growth.

A priority investment plan was created to realize the fill potential of Aden’s Local Economic Development Strategy. Twelve priority investments in the city of Aden were identified and focus on (i) core economic assets and clusters and (ii) strategic infrastructure investments. There are multiple synergies among the priority investments, and overall they provide ample benefit to residents, existing business, and future investors.

Strategic investments include:

1. Off-site Infrastructure for Aden Free Zone;
2. New Berths and Cargo Village at Port;
3. ACT Concession Expansion;
4. Off-site Infrastructure for Bulk Commodity Port and Raw Materials Processing Zone;
5. Off-site Infra. for City Periphery Industrial Zone;
6. Improved Bonding/Warehousing in Tawahi;
7. Cargo Village and Cold Storage at Airport
8. Expansion of Power Facilities;
9. Expansion of Water and Wastewater Facilities;
10. Roadway Improvements;
11. Natural Gas Pipeline to Aden from Belhaf; and
12. Aden Causeway Widening.

# ADEN TODAY

*Public and private leadership in Aden are motivated to create prosperity.*

With solid demographic indicators and widespread infrastructure coverage, the leaders in Aden are motivated and ready to implement a strategy to spur economic growth. Within the Yemeni context, Aden has lower than average urban poverty, ranking sixth out of the twenty-one governorates. In 2006, an estimated 17% of urban families fell below the poverty line, versus 15% in Sana'a and 21% nationally.<sup>5</sup> It was estimated that 92.5% of households are connected to the power system, 92% have access to running water, and 78% of households are connected to sanitary services.<sup>6</sup> However, the city suffers from high levels of unemployment. Indeed, the official unemployment rate is estimated at 28%, about double the national average.

**Population, Employment, Poverty and Migration**  
*Trend: Aden has many positive demographic indicators, but suffers from high unemployment.*

## **Demographic Characteristics**

The Aden Governorate, which is defined as 100% urban, is home to 3% of the total national population at about 635,000 people in 2006. According to the Population and Housing Census of 1994, the Aden Governorate had a population of over 400,000, and the city a population of slightly less. It was the second largest population of any urban area after Sana'a City, which had a population of 954,000. The two cities were also the most urbanized of the country's Governorates (being 100% and 88% urbanized respectively).<sup>7</sup> However, there is a relatively high number of people in Aden that are categorized as un-numerated by the Central Statistical Organization, which is understood to include unregistered migrants from outside Yemen and estimates for those people who refuse to cooperate with census officials and procedures for various reasons. A large number of migrant workers from the adjoining Governorates live temporarily in the city in non-permanent housing. These are typically single male workers and could represent a sizable additional element of the population.

## **Poverty**

Despite a reduction in urban poverty in Yemen over the past decade, 21% of urban households still fall below the poverty line. In regard to urban poverty,

Aden fares better than the national average at only 17% of the governorate population. However, as the second largest city in Yemen, Aden is home to about 10% of the country's poor urban families (approximately 16,500 households). Compounding the poverty challenge is the fact that urban areas have high income inequality. In Aden, for example, income inequality increased by about 14% between 1998 and 2006.<sup>8</sup>

## **Employment**

The main socio-economic challenge that Aden confronts today is high unemployment, likely spurred by a skills mismatch and increasing migration to Aden from the neighboring Governorates.

As of 2007, it is estimated that Aden had 128,000 employees/self-employed individuals, or 2.6% of the Yemeni total.<sup>9</sup> Of this workforce in Aden, 87% were paid employees and a further 10% were self-employed. The comparative figures for Yemen as a whole were 42% and 31% respectively, pointing to a relative lack of entrepreneurial spirit in Aden. Furthermore, just 29% of the workforce was employed in the private sector compared to 80% for Yemen as a whole.<sup>10</sup> Public employees account for the lion's share of Aden's workforce. The unemployment rate in 2004 was estimated at almost 28%, a very high figure compared to only 16.2% nationally.<sup>11</sup>

Only 12% of working women in Yemen are employed in the non-agricultural sector. With 21% participation by women in the formal labor force, Aden is an exception. The vast majority of these women (approximately 93%) work in the public sector (in civil service or state controlled enterprises) compared to only 6% of women in Yemen overall. These women mostly work in the social sectors such as education, health and public administration which together account for 66.7% of Adeni women's employment. This sector provides more gender equal employment opportunities than elsewhere in the country. For instance, women account for 55% of employees in education compared to 18% for the country as a whole. The remaining 7% of women working in Aden's formal sector are employed in private enterprises.<sup>12</sup>

<sup>8</sup> Yemen Poverty Assessment, The World Bank 2007

<sup>9</sup> Aden Local Economic Development Department; data adapted from 1999 Labor Force Survey.

<sup>10</sup> Based on 1999 Labor Force Survey

<sup>11</sup> Central Statistical Office

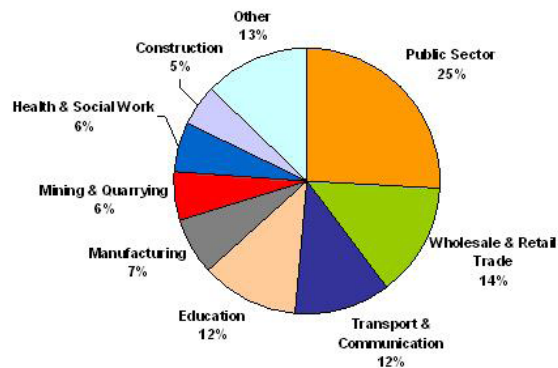
<sup>12</sup> "Women in the Local Economy of Aden, Yemen." The World

<sup>5</sup> Yemen Poverty Assessment, The World Bank 2007

<sup>6</sup> Central Statistical Office, Statistical Yearbook 2006

<sup>7</sup> Aden Master Plan, 2006

## Estimated Composition of Employment in Aden



### Migration

In order to obtain a better understanding of migration patterns, a series of focus group discussions and interviews were conducted as part of the Master Plan research. A cross-section of the community was chosen in order to obtain a balance of social groups. Those involved in the focus groups or interviews included teachers, housewives, businessmen, hawkers, workers and ahkdam (street sweepers) and included both those born in Aden and more recent migrants.

All the teachers reported school overcrowding, partly as a result of the influx of migrants. Students and their families came from not just the neighboring governorates of Lahj and Abyan but also Shabwa, Taiz, Hodeidah, Mockha, and Sana'a. Thus there is no clear pattern of migration to the city and Aden appears to attract people from all parts of the country.

A number of reasons were cited for people moving to Aden but no clear differences emerged between the social groups. The two most frequently given reasons were for education, because schooling was believed to be better in Aden than their own governorate, and the availability of water. The availability of electricity was also cited but seemed to be less important than water. Business opportunities were another reason given for the move to Aden but job opportunities was considered less important. The fact that a relatively low proportion of people cited job opportunities as a reason for migrating to the City is perhaps a reflection of the high levels of unemployment in Aden.

### Land, Infrastructure & Urban Development

**Trend: Aden has much of the basic infrastructure required for businesses to compete, with a few areas requiring major investment.**

The city of Aden has a complex urban structure. Unlike most port cities, which have a clearly defined central business district, residential suburbs and industrial zones, Aden is made up of a number of separate districts, each with its own commercial center. The city grew on a peninsula, which provides a good natural harbor. It has expanded along the coast and followed the main radial route inland. Today, the Governorate covers an area of 6,980 square kilometers. Crater, Ma'alla and Tawahi are districts on the peninsula separated by mountains, each with its own separate identity. Khormaksar lies on the isthmus of the peninsula and is divided into a northern and southern half by the airport. Mansoura, Sheikh Othman and Dar Saad are three separate districts on the main radial route inland which are rapidly merging to become one large conurbation defined on its western edge by Wadi Al Kabir and potentially extending to the eastern seaboard. To the west of the Wadi Kabir is the district of Boreika, the principle settlement of which is Little Aden.

**Crater:** Crater is located on the Aden peninsula, on the east facing external volcanic slopes. It is bound by the sea to the east (Holkat Bay and Front Bay) and south, by steeply sloping volcanic rock faces to the west, and by the District of Khormaksar to the north.

Crater is the historic centre for Aden, having provided port facilities until the deep water requirements of more recent vessels forced a move to Ma'alla and Tawahi. It therefore provides a setting for a number of important historic structures and buildings.

It is a thriving centre for retail and commercial activities, supported by relatively high density residential development. It also boasts Aden's first large scale shopping centre and a number of public recreation areas on the seafront. The western fringes are characterized by informal residential construction that is climbing the surrounding slopes.

In townscape terms this area offers a rich diversity of imagery, supported by objects of cultural and historical significance. The narrow streets that form the bulk of the area are lined with small retail outlets in the form of a traditional souq, and further retail is provided with the city's first major shopping centre on the waterfront.

**Ma'alla:** Ma'alla is located on the northern side of the peninsula, bounded by the port on the north, Crater to the east, and Tawahi to the west. The south side is contained by the northern ridge of the volcanic for-





in a sad state of repair (including the buildings used as a military hospital) these structures are unique in Aden and demonstrate definite qualities as appropriate solutions to the climatic needs of the area.

Over time the wadis and hill slopes have seen an accretion of development, much of it unplanned and therefore making little contribution to the urban character of the area. Roads are steep and dangerous, and formal areas of open space are extremely limited. However, there are areas of military land that are underutilized. These could provide space for more open space and other much needed community facilities.

Small areas of industrial infill are an unfortunate addition to the land uses in this area.

To the south developed is more dispersed. The area is characterized by beaches and mountain slopes with a number of individual developments built to take advantage of the unique setting. Unfortunately many of these do not make any effort to respect the environment, and act instead to reduce its quality. Road improvements have made more of this area accessible, and proposed extensions of the coast road through Gold Mohr Bay threaten to attract more development which, unless it is carefully controlled, could also act to reduce the unique quality of this part of the Aden coastline.

**Khormaksar:** Khormaksar is a large flat area of land located in the neck of the Cape of Aden. It is bounded by the extended length of Abian Beach to the east, by the Inner Harbour area to the west, and by Crater to the south. The northern part of the District is completely severed from the rest of the area by the Airport.

Khormaksar is the former military stronghold of

Aden. Army camps are still located here but are likely to be relocated outside the Governorate in the near future thereby releasing large areas of land for development. Much of the area is relatively low density comprising villas that were formerly used by army officers, some of which are now converted into offices.

Major development took place in the 1950's, when a substantial quantity of villa housing for British officials and military families was constructed. Much of this housing is now used by private companies, embassies and administration offices, although the area is still primarily characterized by simple plots with large villas.

Commerce is limited to one main street, and there are examples of small scale industry. The area is also characterized by large tracts of vacant or underutilized military land.

**Northern Khormaksar:** This area is shown in the latest iteration of the Master Plan as predominantly residential and subdivided into a number of neighborhood blocks. Much of the area has by now been demarcated for development but very little progress has been made as water and electricity supplies have not yet been provided. The development has the potential for becoming suburban sprawl. Apart from one sizable park there does not appear to be any special feature providing interest in this area except for the seafront.

**Sheikh Othman, Mansoura, and Dar Saad:** These three areas have grown up as ribbon development along the main road to Lahej. Over the years the ribbon has widened and the three areas have merged into a single conurbation. The latest iteration of the Master Plan shows new residential neighborhoods planned as far as northern Khormaksar in the east

### Density in Aden Districts, 2004

District	Area (ha)	Built-up Area (ha)	Residential (ha)	Population	Average Density (pp/ha)
Crater	1,300	240	100	91,600	916
Ma'alla	773	280	40	56,800	1,420
Tiwahi	1,282	330	150	60,700	405
Khormaksar	5,680	1,413	215	45,000	210
Mansoura	1,940	660	236	116,800	495
Sheikh Othman	1,611	550	233	99,300	426
Dar Saad	6,163	406	172	71,300	414
Little Aden	17,500	1,000	143	58,800	414
<b>TOTAL</b>	<b>36,249</b>	<b>4,878</b>	<b>1,289</b>	<b>600,200</b>	<b>466</b>

Source: Aden Master Plan, 2006



### Existing Land Uses in Aden, 2005

and Wadi Al Kabir in the west. Similar to northern Khormaksar the areas give the appearance of becoming a suburban sprawl.

Sheikh Othman District was started in the 1880's as a dormitory town for workers in the Aden docklands. Mansoura bounds it to the west and by Dar Saad to the north. Large areas of saltpans demarcate the southern boundary, and the eastern edge is undefined by formal built development, although plans are in place for substantial expansion of Aden into a number of new Districts in this area. Although the area is largely characterized by relatively high-density residential developments, there is also a strong focus in the form of a major mosque and market development on the main commercial street.

Mansoura was originally laid out as a new town adjacent to Sheikh Othman in the 1960's. It has subsequently grown to become one of the more densely populated Districts in Aden, characterised by mushrooming developments of apartment buildings.

The original plan is laid out as a strong grid, with high levels of plot coverage leading to closely spaced buildings. More recent development has led to a breakdown of the original grid, but with building intensity maintaining similar levels. The intensity increases on properties fronting the major roads, as developers try to maximise the visibility potential offered by these locations.

**Little Aden:** Little Aden has grown up on the strength of the oil refinery in the 1950s. British Petroleum started the Little Aden refinery in 1952. Large flat areas nestling between high steep rocky outcrops and ridges characterize the area. On the north the development is separated from the mainland by a wetland khor; the area to the east and south is bounded by the sea, and the west extends to the adjacent town of Badar Fukum.

The flat areas are dominated by the refinery and oil tanks, with limited planned and informal settlement areas. To the south there are a number of unspoiled beaches protected by the ridges.

It is remote from the rest of the city and contains extensive areas of undeveloped land, much of it zoned in the Free Zone Master Plan as industrial, and the coastline as tourism. As mentioned above, the refinery is too distant to have an adverse impact on the city as a whole but there may be local impacts within its buffer zone. Further along the coast towards Wadi Al Kabir the steam turbine power station may have an adverse impact on the expanding community of Al Shaab. The main element in this community is the city university. This campus is currently a long way from the rest of the City, although some facilities are located within other parts of the city.

Land in Aden has been widely allocated to private parties in a manner that is far beyond that required to satisfy rates of growth. This has resulted in large



vacant areas, even in prime town center locations. In fact, of Aden's 36,000 hectares, it was estimated in 2004 that less than 5,000 (or 13%) were developed.

A strong physical and information infrastructure is a baseline requirement to establish and sustain a prosperous regional economy. This includes good quality roads, highways, airports, railroads, telecommunications, water and power. These basic investments support the efficient movement of people, goods, and services as well as the quality of life for residents. Additionally, investments in unique and specialized assets such as university campuses, research programs, and logistical infrastructure are important. Universities and research centers are the driving force behind innovation in nearly every region. Although companies and individuals create a large number of innovations, universities and research centers institutionalize entrepreneurship and ensure a steady flow of new ideas.<sup>13</sup>

While clearly there are gaps in basic infrastructure, Aden does have a number of advanced and specialized infrastructure offerings attractive to businesses in key clusters. Aden is home to both an international airport and active seaport. The airport is appropriately located with landing and take-off over the sea, which reduces safety and noise concerns, and with vehicular access to most parts of the city within 15 minutes. The airport is generally in good condition and well equipped and could handle a far greater volume of traffic than it is currently serving. A plan for developing a cargo village and cold storage facility would greatly expand the airport's role in the import and export of goods.

The first formal port in Aden was located in Crater, where warehouses were built and the customs post was constructed facing Front Bay by Sirah Island in the 19th Century. As trade increased, the focus of activity shifted to the more sheltered main harbor at Ma'alla, where the present day cargo port is still located, backed up by later commercial and residential areas much of it built after the Second World War. Today port traffic has to penetrate through the main built up areas to reach the hinterland. A truck ban has been introduced during the daytime so that trucks/truck loading and unloading do not hinder or disturb the smooth flow of traffic. At night time trucks have to use the road to the east of the airport as the road to the west, i.e. the causeway, is not able to carry heavy traffic because of loading restrictions.

The city has access to several important natural resources including fish reserves, minerals and stone quarries, and a long coastline including sandy beaches. Additionally, the city is home to several

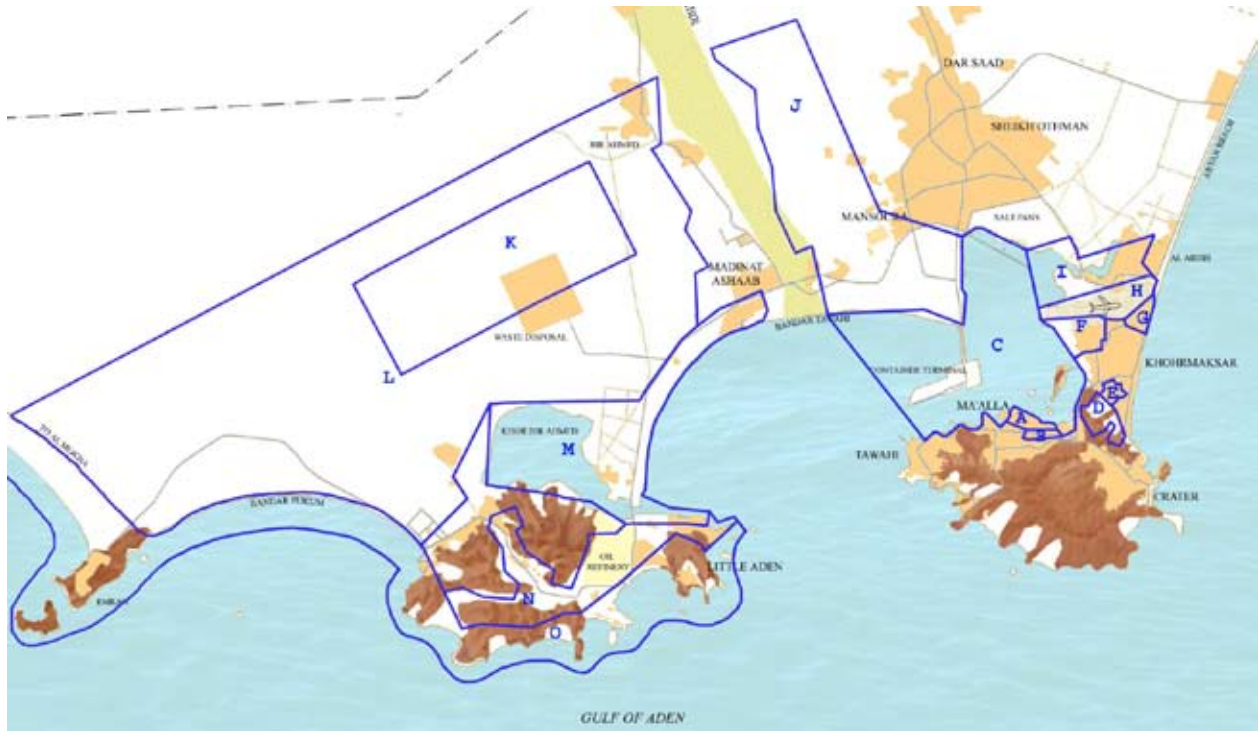
historic sites, such as the Tawilah Cisterns, Sirah Castle, the Al Aidrus Mosque, the Aden Minaret, and the Palace.

A variety of options for higher education and skills training exist in Aden, but businesspeople are concerned that there is a lack of a well trained workforce in Aden. It was suggested that many of the better educated and trained have left to work in the Gulf and that the output of new students is not adequate. The content of courses was criticized as over dependent on theory but short on practical, hands on work. Aden possesses one of the larger universities in Yemen, with over 26,000 students registered. It is organized into 17 faculties. The largest faculty is Administrative Sciences, which includes accounting and business studies, followed by Education. Vocational training is provided at secondary level in Vocational Centers in Khormakser and Mansoorah and at a number of post secondary level institutes, includ-



**Before and After Upgrading of the Al Durain Industrial Estate**

<sup>13</sup> Michael E. Porter, et al, Clusters of Innovation: Regional Foundations of US Competitiveness.



## Aden Free Zone Sector Master Plan

### Existing Free Zone Land Allocations

Sector	Land Use	Area (ha)
A	Expansion of Aden Port	59
B	Expansion of Warehousing Facilities	9
C	Aden Container Terminal	2,900
D	Warehousing Facilities	95
E	Expansion of Airport Traffic	50
F	Expansion of Air Cargo Village	198
G	Airport Related Industry	30
H	Expanded Economic Activities	284
I	Expansion of Aden Airport Facilities	1,469
J	Light Industrial Activities	3,440
K	Planned Future Airport	2,770
L	Heavy Industry	14,000
M	Expansion of Little Aden Refinery Port	2,200
N	Petrochemical Industries	910
O	Tourism	4,000
<b>TOTAL</b>		<b>32,400</b>

Source: Aden Free Zone Investor Guide

ing the Technical Commercial Institute, the Maritime Technical Institute and the Industrial Technical Institute. Because Aden will not realize its vision of prosperity for its citizens without successful businesses, an increased focus on business training (marketing and product development), and the creation of cluster-specific training facilities and research institutes, with strong linkages to the private sector will be critical to Aden's economic development strategy.

The main industrial areas in Aden are the oil refinery at Little Aden, the light industrial area at Al Durain, and the Aden Free Zone. The oil refinery utilizes harbor facilities in Little Aden and is sufficiently far removed from the city as not to cause any environmental impact. The Al Durain area is conveniently located between the Mansoura conurbation and the new development area to the east and can be seen

as part of a larger employment area extending along the salt pans to the northern side of the airport. Infrastructure in Al Durain was recently upgraded as part of the Port Cities Development Program. After the completion of the infrastructure improvements, which included new roadways and utilities, it is estimated that the 81-hectare area provides 15,900 jobs in 165 light industrial establishments.

The Aden Free Zone was established in 1993 with the aim of transforming Aden into a hub for international trade. It is comprised of 32,000 hectares of land (two-thirds of the total area of the Governorate of Aden) divided among 15 districts, allocated to different industrial, logistics, and services activities.

Actual implementation of the project began on March 18, 1996 when the government signed an agreement with Yeminvest on the development of the Aden Container Terminal and the Industrial and Warehousing Estate. The Terminal comprises six quays at a length of 1,650 meters with 16 m depth expandable to an 18 m depth in the future. The ACT project will be implemented in three phases. Phase I was inaugurated and went into operations in March of 1999. Phase I includes two quays of 680 m in length and 16 m in depth and a container yard of 35 hectares capable handling an annual throughput of approximately 500,000 TEU. The Terminal facility spans a total area of 83 hectares of quay and container handling equipment. It has ample space for container storage, efficient yard operations, and service and administration facilities.<sup>14</sup> A 26-hectare Distri Park and the Industrial and Warehousing Estate were completed in 2003.

The Aden Free Zone Authority has licensed about 30 companies (mainly trade related) to establish offices in the ACT complex and about 45 companies to implement projects in the remaining parts of the Zone, of which less than 20 are operational. These companies include warehousing and a variety of manufacturing operations. Most projects are oriented to the domestic market, and include both foreign and local businesses. The licenses issued also include licenses for the development of residential complexes in the zone. In total, licensed projects account for less than 1 percent of the total area of the zone.<sup>15</sup>

### Local Economy

***Trend: Imports and exports from Aden are increasing, and maritime, tourism, and manufacturing-related industries show growth potential.***

The data from the Port of Aden and Aden International Airport reveal that Aden's trading connections increased in from 1999-2007. Total tons of cargo

unloaded at the port was up an average of 6.3% annually, while tons of cargo loaded grew by 5.0% annually. The cargo moving in and out of the Aden seaport is dominated by oil which represents about 95% of cargo loaded and 68% of cargo unloaded in total tons in 2007. The trade gaps of these two product groups are similar, highlighting the small role that exports of non-oil dry cargo play.<sup>16</sup> Between 1999 and 2006, total tons of cargo sent by air increased by about 10% annually while cargo received increased only 7% annually, slightly closing a large gap in goods traded by air.

The port, although still dominated by the loading and unloading of oil, is increasingly integrated with Aden's local economy and its international performance vs. other regional ports is improving. Although still small overall, there was a 2.6% average annual increase in exports between 1999 and 2007. Several new companies located in the free zone are taking advantage of Aden's new high-performing container terminal. Growth in the production of metal products and marine maintenance services used by the port is creating future potential opportunities for businesses to emerge.

An analysis of the Aden Governorate's share of national employment in its key economic activities suggests several areas in which the governorate is outperforming the country overall in the creation of jobs. Total employment in Aden accounts for 3.6% of national employment. However, in three economic activities, Aden's share of national employment is much higher than 3.6%: Mining and Quarrying, Transportation and Storage, and Real Estate Activities. These higher than average shares of employment suggest that the Aden Governorate has relative advantages, and relatively higher ability to support employment, in these areas.

### Business Climate

***Trend: Aden has a rich history of international trade and shipping, but requires better public-private coordination and entrepreneurial momentum to realize its full potential.***

The rules, incentives, and pressures governing the competition in a region have a fundamental influence on productivity. Policies that encourage investment, protect intellectual property, and open the local market for trade, for example, foster productivity growth. Strong rivalry and the intensity of local competition also contribute. Aden has a rich history of international trade, but must leave behind the vestiges of its communist period during which most productive assets were nationalized in order to seize the entrepreneurial opportunities of the future.

<sup>14</sup> Ministry of Planning and International Cooperation website

<sup>15</sup> Ecorys, 2008

<sup>16</sup> Kaia Miller; data updated with information from the Port of Aden.



A survey of business leaders in Aden in 2002 revealed that there are some negative perceptions of the business environment in Aden, relative to that of neighboring countries such as Egypt and Jordan. The challenges are not surprising and include: the quality of basic infrastructure, particularly roads and electricity; administrative bureaucracy, particularly in customs and business licensing and registration; underdeveloped business management and strategy skills, weak clusters, and lack of a real culture of competitiveness and entrepreneurship. Additionally, the quality of life was criticized by local leaders and foreigners looking to do business in Aden and via the port and must be addressed if Aden is to position itself as a competitive, international port which stands out from its peers, and attract outside companies to locate there.<sup>17</sup>

The emerging institutional architecture and process for change in Aden needs further development. The quality of dialogue, particularly between the public and private sector needs to improve, and the responsibilities of the private and public sectors need to be articulated, acknowledged, and pursued. The survey results highlighted the importance of an improved private-public sector dialogue. The roles of both the private sector and the government are easy to describe but difficult to achieve in practice. The government needs to do everything it can to help the private sector, except show favoritism and impede competition -- investing in the business environment, reducing administrative bureaucracy, engaging in a dialogue with not just the few large firms, but the smaller and medium-sized firms where the region's growth appears to be most dynamic, and, finally, investing in the image and promotion of Aden internationally.

On the other hand, the businesspeople of Aden need to accept more responsibility for improving the region's economy. Currently, according to the survey results, there is a strong tendency among private sector leaders in Aden to view the government as the leader in the economy and to blame the government for their problems. These business leaders need to invest in their own strategies for upgrading the differentiation, sophistication and quality of their products and services. This means investing in business strategy skills in areas such as understanding customers and markets, analyzing costs and benchmarking the competition. Both government and business leaders need to invest in a more effective and ongoing dialogue with each other and design a strategic process for change that combines ongoing, data-based analysis of Aden's current competitive position with broad-based leadership, short-term wins, and clear performance metrics.

The quality of demand in a region has a strong in-

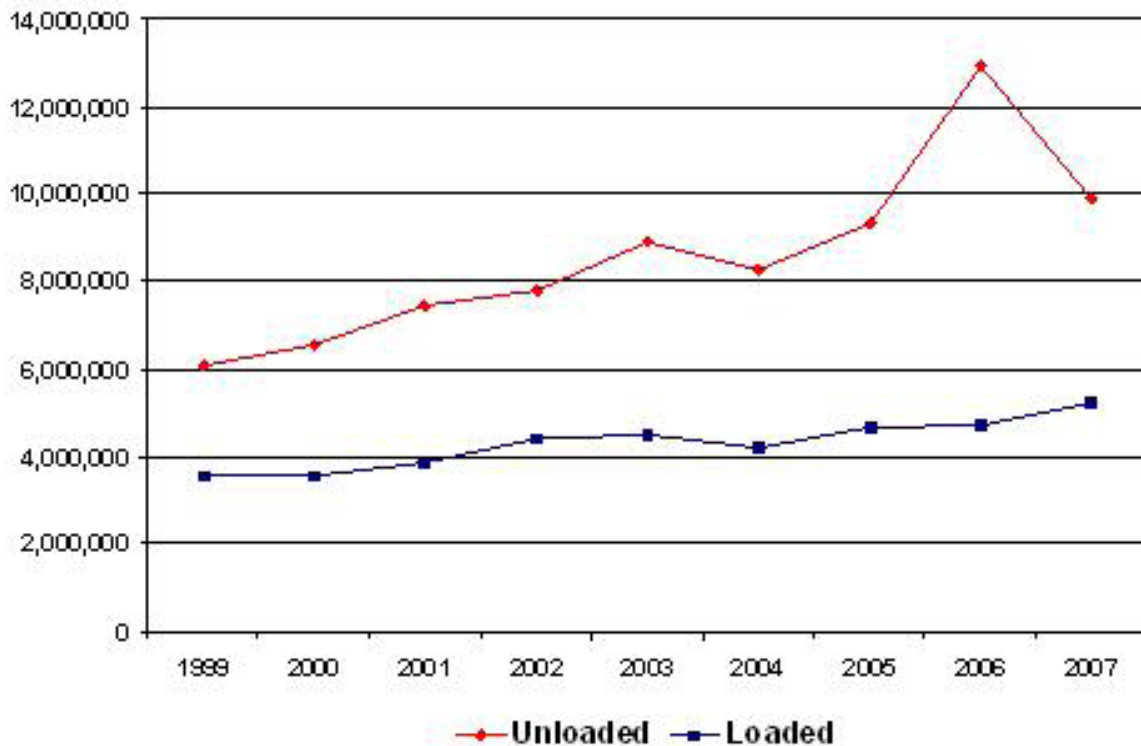
fluence on the process of creating and improving products and services. Sophisticated customers in a region pressure firms to improve and offer insights into existing and future customer needs. Customer demand in Aden could be described as weak and unsophisticated, frequent tourists and Yemeni expatriates visiting from abroad represent groups with generally more sophisticated demand which local businesspeople could learn from to improve their products and services. For example, tour companies, hotels, handicraft shops and restaurants could institute regular surveys with visitors to improve their offerings, and exporters could do the same with their international customers. Additionally, the local government could work with the central government on stronger consumer protection laws and enforcement of the laws.

As part of the Port Cities Development Program, the Aden Investment Advisory Council, which includes key public officials and private sector representatives, was created, and an investors' services facility was established. However, the city lacks a strong and active chamber of commerce. Moreover, cluster-specific organizations in Aden are either weak or nonexistent, and there are few practical linkages between the universities and the private sector. Forming and institutionalizing informal groups such as women entrepreneurs, university alumni groups, and cluster-specific groups with broad representation from all related and supporting industries as well as training institutes can contribute greatly to the improvement of strategies, the development of new businesses, and cooperative efforts to strengthen key clusters.



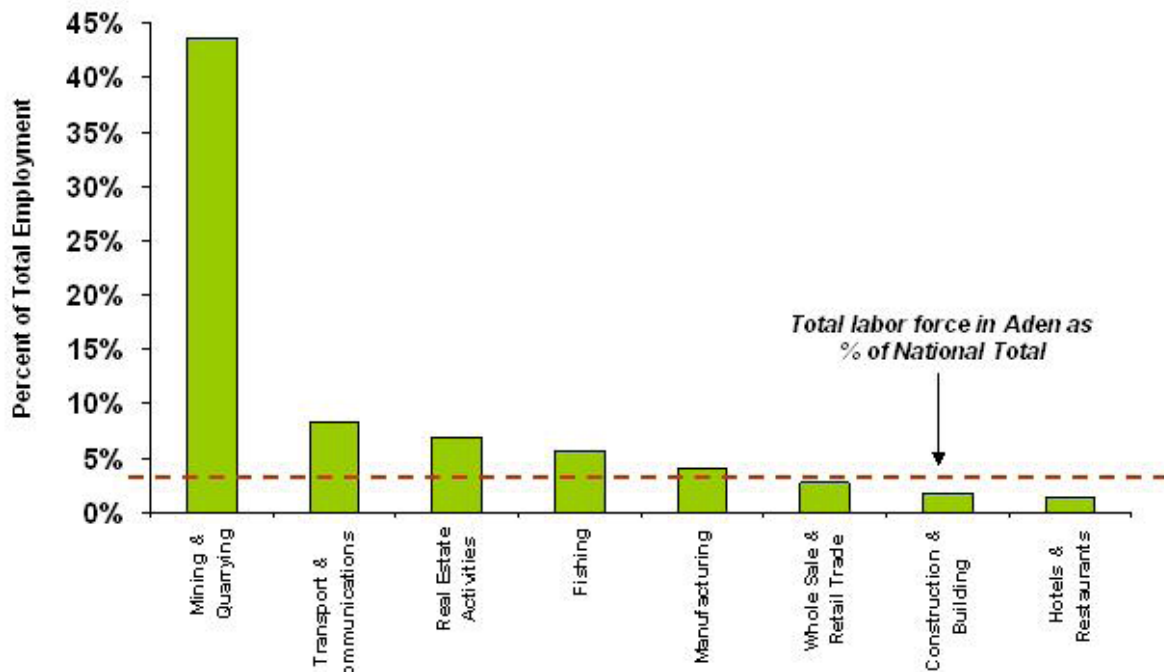
<sup>17</sup> Kaia Miller

## Tonnage Loaded and Unloaded at the Port of Aden



Source: Port of Aden

## Aden's Share of National Employment by Economic Sector



Source: Central Statistical Office

# ADEN TOMORROW

## Aden: The Commercial Capital of Yemen

The vision and strategy for Aden's future must be based on its unique assets and history, and the strategy for achieving the vision must be consistent with the elements of an effective regional economic development strategy. An effective regional strategy will build on the region's existing strengths and unique assets, will be differentiated from other regions, will encompass a wide range of clusters, and will strengthen established, traditional clusters. Leaders in Aden have recognized these critical elements of their future strategy. The shared vision for Aden is to evolve into a truly modern city which effectively utilizes its competitive advantages to attract local and international investment and to function as a highly competitive regional hub for sea and air cargo, passenger transport activities, and related support services such as manufacturing, international trade, and tourism.

In addition to focusing on cluster development, a successful regional strategy also must align with national objectives and differ from other regions in Yemen based on the unique assets and relative strengths present in the city and its surrounding region.<sup>18</sup> In the expanded version of Aden's future vision, the alignment with Yemen's national vision and objectives becomes much more apparent in areas such as exploiting the potential in tourism, strengthening the link between the city and the Free Zone, increasing exports, strengthening links between higher education and society, strengthening institutes of innovation, and strengthening government-private sector relations.

There is a shared sense of pride in Aden, particularly around the city's strategic location and port, the history and culture of the city, and the hospitality of the people. These themes not only present foundations for defining the future city that Aden wants to be, but they are directly connected to two dynamic industries in Aden: tourism and port maintenance products and services. Aden's international competitive positioning as a port city should be guided by these themes. There is a strong desire for action and results expressed by both public and private sector leaders. The President of Yemen has committed his attention to Aden as the "economic growth pole" for the country and local private and public sector leaders are rising to the occasion.

Aden's strategic location, port, and history may pro-

<sup>18</sup> Michael E. Porter, et al, Clusters of Innovation: Regional Foundations of US Competitiveness.

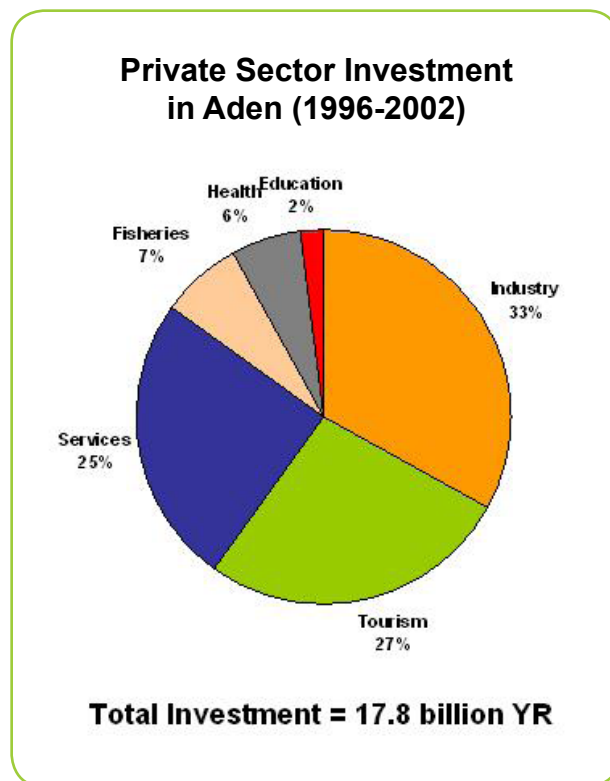
vide the city a *comparative* advantage in maritime, tourism, and manufacturing industries. But, for the city to achieve a *competitive* advantage in those industries, local authorities and business leaders must establish positive feedback mechanisms. In short, they must leverage Aden's static assets to grow in a new and dynamic way.

### Clusters of Competitiveness

**Cultivating economic growth clusters is a long-term endeavor involving multiple private and public sector partners.**

To realize its long-term vision of high and rising prosperity for its residents, Aden will not only have to invest in upgrading its business environment, but it will need to cultivate regional "clusters of competitiveness." In fact, to maximize results in the shorter term, the clusters Aden elects to focus on first should determine the prioritization of improvements in the business environment and urban infrastructure.

The development of clusters is a long process occurring over decades. Clusters often originate as a result of strengths in the business environment. In Aden's case, the city's natural harbor and location near the entrance to the Red Sea, strategically situated between the Suez Canal and the Indian Ocean,







on major international shipping lines, gave rise to the shipping and maritime cluster. The region's colonial history and spectacular topography contributed to the emergence of the city as a recognized tourist destination. Clusters can also arise from unusual, sophisticated, or stringent local demand, or from the formation of a few innovative companies that stimulates the formation of more. One of the questions central to Aden's economic development strategy is how to speed up the process of cluster development.

A sound regional economic development strategy will build on the region's unique assets and relative strengths to develop specialized clusters. Successful city strategies do not pick winning clusters, but build on the surrounding region's inherited assets (e.g. geography, climate, population, research centers, companies, governmental organizations), to create specialized economies that differ from other regions and offer advantages to local companies.

Aden's strategy must include the cultivation of a broad array of clusters. Although all regions tend to specialize in a few clusters, some are especially over dependent. They have a disproportionate share of employment in one cluster, and even in a handful of

companies, which makes them unnecessarily vulnerable. For example, in Aden, where shipping related services is one of the region's key clusters, incidents such as the bombing of the USS Cole in 2000 and the attack on the French oil tanker Limburg in 2002 can decimate the cluster temporarily. An overdependence on shipping means the people of Aden suffer disproportionately. A wide array of specialized clusters can help protect a region against such economic shocks.

That said, in cultivating regional clusters of competitiveness, established and already emerging clusters offer the greatest prospects for short-term results with an explicit cluster development process. Short-term positive results can encourage other clusters to engage in an explicit cluster development process. Based on Aden's unique assets and relative strengths, as well as its existing industries, clusters that present the greatest prospects for near term productivity growth include Maritime, Hospitality and Tourism, and Manufacturing. Other clusters that should be considered based on recent dynamic growth, existing assets, potential sources of advantage and excitement and commitment of local lead-

ers include Wood Products and Seafood.

Overlapping clusters offer potential synergies in skill, technology and partnership. Exciting opportunities can often be found at the intersection of clusters and Aden should pay particular attention to these areas of overlap.

The city of Aden is known for its port and its rich physical and cultural heritage. However, the composition of its economy suggests a much more diverse set of existing and emerging “clusters” beyond port activities and tourism. Aden’s industrial production grew 2.1% annually from 1998-2002. Production is dominated by the Food/Beverage/Tobacco sector at about 58% of total industrial production in 2002, followed by Chemicals, Wood Products and Metals. Food/Beverage/Tobacco, although significant, remained stagnant while Wood Products showed the strongest growth at 91% annually over the four-year period.<sup>19</sup>

As a port city, Aden has tough competition in a region where ports abound. The region’s leading port, Jebel Ali, offers all of the services found in Aden (particularly transshipment and container services) as well as additional services often for better rates (particularly repair services) and much higher quality of life onshore. However, Jebel Ali’s positioning as a new, modern port city is quite different from those elements that characterize Aden: history, culture, and people. If the quality of services and rates in Aden continue to improve, the port’s geographic position close to parts of India and Northern Africa, and a deep history of trade connections with these areas, along with a differentiated positioning based on history and culture, could combine to set Aden apart.

### ***Aden’s Maritime Cluster***

Maritime, and its related industries, is Aden’s most promising growth cluster. This cluster is also expected to function as a conduit for the transfer of economic returns from regional infrastructure to the city economy. In addition this cluster is also expected to contribute to the equitable distribution of economic value and employment and income generation opportunities to marginalized segments of the city’s economy through direct employment of all skill levels and genders of local workers as well as through the engagement of micro, small and medium scale enterprises operating in Aden.

In the 1950s, Aden was one of the major ports of the world, acting as the regional distribution center and also taking many calls from ships for bunkers. At this time, the port was growing as fast as world trade and everyone was confidently predicting that Aden would become the regional equivalent of Hong

Kong. However, in the 1960s, the Port of Aden was struck by two blows from which it is still recovering. Nationalist feelings ran strong in south Yemen and an increasingly violent series of confrontation with the British Authorities followed. Eventually the British left Aden in 1967, leaving a very doubtful security situation, which continued until after unification in the 1990s. Almost all the dhow trade left Aden at this point and international shippers were very reluctant to take ships into the port.

Also in 1967, the Suez Canal was closed following a regional conflict and it remained closed for 7 years. This cut off the flow of international shipping past Aden, and the only ships entering the Red Sea were those accessing local ports. As a result, there were no opportunities to act as a distribution point and the bunkering business disappeared. After unification, the Port of Aden expanded steadily with the refinery throughput continuing and bunkering re-establishing itself, albeit at a lower level than pre-1967. Some of the dhow trade returned but it had become much more centered on the Arabian Gulf, leaving Aden on a limb rather than at the center of the trade.

In the intervening years, the patterns of world trade had changed with much cargo switching from tramp steamers to container ships and vessels demanding much shorter turn around times. Aden therefore had to adapt to servicing ships lying alongside rather than discharging into lighters. Aden responded to this by building the Ma’alla terminal, which was completed in 1991.

In the mid 1990s, the Aden Free Zone Authority let a concession to Yeminvest to build a new container terminal in Aden harbor and this was opened in 1999. As part of this work, the channel was also dredged to a depth of 15 meters, sufficient to accept the largest container ships afloat. Trade at the ACT developed rapidly up to nearly 500,000 TEU per year and showed signs of continuing growth. Unfortunately, this growth was interrupted by the bombing of USS Cole in Aden harbor in 2000, followed by the destruction of the French tanker, the Limbourg, off Aden by terrorists. These incidents destroyed Aden’s hard won progress, and the port has been trying to recover ever since.

The Maritime cluster includes city-based as well as Free Zone-based suppliers of products and services. City-based firms have to obtain licenses from both the Port of Aden and the Aden Free Zone in order to secure entry to the two major cargo-handling terminals at the port. An additional license is usually required for entry to deliver services to vessels (Tankers) calling on the Oil Terminal. Most of the larger city-based firms operate as umbrella entities playing the role of securing orders and sourcing their various supplies or services through local vendors.

<sup>19</sup> Kaia Miller: updated based on data from the Central Statistics Office

However, some of these firms are vertically integrated and maintain bonded warehouses at the Port of Ma'alla, which they tap and replenish as needed.

Such firms specialize on the supply of goods and services to vessel crew that include, but are not limited to, fresh and processed foods and other supplies that meet the personal needs of crew members, including: clothing, communication cards, temporary use cellular phones, and a range of other items. They also includes suppliers of spare-parts (unspecialized at this stage), lubricants, and a range of mechanical, electrical, hydraulic, and pneumatic parts, and other maintenance services required for minor vessels as well as for maintaining and repairing cargo handling or holding equipment. There is a small, but potentially growing, number of free zone-based suppliers of products and services that at this stage seem to specialize in the provision of high technology services to vessels that include navigation and wireless systems repairs and calibration, in addition to other more complex vessel electronic equipment repair services. Such suppliers source some of their base components from city-based suppliers, when and if available, but generally tend to maintain a small stock or place orders from their headquarters or from international suppliers when they are notified by an approaching vessel of its special needs.

Currently, the Maritime cluster is maintaining a stable level of activity, but it has not witnessed significant rates of sustained growth over the past few years. However, it is anticipated that growth will begin to occur once transshipment throughput is recovered and other business environment related improvements are made that focus on facilitating access for city and region-base suppliers to gain streamlined access to all shipping terminals through the consolidation of the licensing process as well as through the set-up of specialized bonded zones that could be used by city-based firms for housing supplies as well as their maintenance workshops. Growth in this cluster will also be further and significantly expanded once a modern, well equipped and suitably located dry dock facility is established at the port, which will begin to attract vessels seeking more substantial maintenance services requiring the input of a range of service providers.

The broader Maritime cluster also includes several sub-sectors, including: banking, shipping and freight forwarding, insurance, legal services, cargo handling, logistics, and land transport, as well as management consulting and accounting. Currently, there is significant activity taking place in some of these subsectors, driven primarily by its city-based client base. However, the scale of operations is expected to grow as growth begins to take place in warehous-







ing and re-export activities at the Free Zone and as local imports of raw materials and exports of unprocessed or semi-processed locally sourced primary goods and manufactured products begins to grow.

Revitalizing this cluster will require rebuilding transshipment throughput at the port and triggering growth in investment in warehousing, re-export and manufacturing activities at the Free Zone. It would also benefit significantly from improvements to the quality, consistency and cost competitiveness of cargo handling operations and procedures at all port terminals and from the resolution of the monopolistic conditions that have hindered the performance of the stevedoring and land transport sectors. Improvements in the capacity of the commercial court and enhancement of the level of knowledge of maritime and international trade law among local consignees (importers/exporters) will also contribute to improving the business environment within which this cluster functions.

It is anticipated that sustained growth in transshipment traffic through the Port of Aden will contribute to a reduction in shipping cost which, coupled with other improvements to be carried out will trigger growth in investment in warehousing and re-export activities. Such activities typically tap a range of products and services of a warehousing and re-ex-

port support cluster which, for cost reasons is usually located outside the zone and in some cases, in a different country or region. In the case of Aden, the foundation of this cluster already exists within the city and must be positioned to capture as much of the demand which will be generated as growth begins to take place in warehousing and re-export activities.

Participating firms in this cluster will have to maintain high levels of product quality and offer highly competitive prices in order to maintain their competitive edge over competing regional suppliers. For this reason, facilitating the growth of such firms and proactively supporting their efforts to develop their competitive advantages through the enhancement of their product quality and the efficiency of their production and product delivery systems will be critical.

#### ***Aden's Hospitality and Tourism Cluster***

A successful Hospitality and Tourism cluster is correlated with above average economic growth rates, accelerated local and foreign investment, high quality job creation, and improved public education, and with the right strategies, can incubate regional prosperity and economic growth. Upgrades required for a successful Hospitality and Tourism cluster benefit ordinary citizens and increase the competitiveness of a region's business environment. These up-



grades include: a stable and risk-free political and regulatory environment, a high degree of safety and security, good health, hygiene and environmental standards, respect and protection of foreign and private ownership, secure property rights, technological innovation, integrated air, ground and tourism networks, high quality hotels and banks, broadband access, cellular phone coverage, electronic payment systems.<sup>20</sup>

The number of foreign tourists visiting Aden has more than doubled from just fewer than 6,000 in 1998 to some 14,600 in 2007. However, this is still a relatively low number. The striking modesty of the latter figures emerges when compared, for example, with tourism arrivals to Hammamet in Tunisia, Agadir in Morocco and Sharm-el Sheik in Egypt, which, in 2006, received 635,000, 578,700 and 1.2 million international visitors, respectively.

According to official data, the number of hotels in Aden has also increased in recent years and in 2006 it was recorded that there were 132 hotels offering 3,305 hotel rooms (6,468 beds). In 1998 there were only 15 hotels providing 812 beds. Of the total hotels in Aden for 2006, the majority were three star establishments or lower, with only five offering four and five star accommodation.

During the 2nd National Conference for Tourism held in Sana'a in 2003, it was estimated that on average tourists spent \$150 per night in Yemen, with the average number of nights in the country being four. On average the number of nights per tourist in Aden in 2007 was less than three. Given the relatively low nights per tourist in Aden this suggests that it is mainly a stop-over location. In 2007, over 100 travel and tour companies were registered with the Aden Chamber of Commerce and Industry.

The Hospitality and Tourism Cluster encompasses a wide range of subsectors and activities that include hotels, inns and other rental accommodation

arrangements, restaurants and other food catering entities, household support and supply services, and family and general entertainment facilities. From a quality-of-life perspective it could also encompass hospitals, clinics and pharmacies, preschools and grade schools, public libraries, museums, and public parks, open urban spaces and children's playgrounds. The cumulative quality of all of the above subsectors and entities, determine the quality of life in a city and its livability from the perspective of its various categories of inhabitants and users.

Aden offers a good foundation under most of the above categories, but gaps do exist, especially in the quality and consistency of services. At the current level of demand for short and long-term accommodation, the city experiences a surplus in capacity during most periods of the year. Capacity limitations become clear during national events that lead to the influx of visitors from various parts of the country and during the Arab tourism season. However, these peaks in demand are infrequent and do not at this stage justify significant investment in additional capacity. The same situation applies in the case of demand for restaurants and food catering as well as in other areas related to household support and supply services. The quality of such services should be improved to adhere more consistently to international standards. This will be a prerequisite that must be achieved and maintained in order to ensure that the city can offer the needed capacity and quality to meet growing demand.



<sup>20</sup> See "Travel and Tourism Competitiveness Report 2007," Booz Allen Hamilton and the World Economic Forum.

Quality-of-life related services are less developed and represent a critical gap in the city's capacity to accommodate an influx of regional and international new comers and to meet their higher standards for healthcare, schooling and other basic living support services. Moreover, the number of usable and good quality urban spaces, parks and playgrounds as well as cultural institutions is limited and will require a focused effort to expand and develop.

Given the high potential of Yemen's cultural tourism sector and the role that Aden is expected to play as a gateway for investors as well other travelers to and through Yemen, it is recommended that initial action be taken to ensure the readiness of the city to handle such growth once it begins to occur. It is anticipated that growth in business related travel and tourism will drive growth in this cluster in the near-term. The capacities developed to meet the requirements of growth in business travel will also serve as a foundation for other types of tourism activities.

Currently, Aden is experiencing growth in tourism from the surrounding Arab region. It is also witnessing growth in business related and event (national/political as well as economic/commercial) driven inflows of travelers, but such activities are characterized by peaks in demand rather than steady flows. Therefore, annual cumulative numbers remain modest but potential for growth is significant and is expected to materialize once the Aden Free Zone development begins to pick-up pace and triggers other sectors in the city's economy.



There are three key areas with tourism growth potential in Aden – Crater, Tawahi, and Gold Mohr.

Crater is the historic center of Aden. It possess a rich historic urban fabric nestled within a distinctive and dramatic landscape which offers an ideal physical foundation for the development of a beautiful and well integrated central city district which could house mixed-use activities including residential, commercial/business as well as recreational and tourism functions.

Historically the area boasts the Tawila Tanks, the Al Aidrus Mosque, the Aden Minaret, and a partially restored Hindu Temple that is buried in the mountain-side. The Tanks and the Minaret act as points of focus for the area, as does the recent Bank of Aden building, located at one of the major road junctions. Other notable structures include the Palace and a prominent church building.

Tawahi is rich in the historic remains of its heritage as a transit passenger terminal. Old hotels and retail premises in the town centre mark the importance of the area for duty-free shopping lend an atmosphere of history. Particular notable are the Crescent Hotel, The Seaport Terminal Hall (recently renovated), an historic mosque (opposite the Hall), the Department of Antiquities Building, and the Port Authority Building on the waterfront. These seafront structures are separated from the historic core of the town by a large, well maintained public park with a statue of Queen Victoria.

The Tourism Department is based here and there are hotels, resorts, restaurants and beaches. A key issue is whether the road giving access to the Sheraton Hotel on the south coast should facilitate extension of the coastline and connect into Crater, thereby creating opportunities for development alongside the beaches.

Finally, Gold Mohr, occupies the western most part of the volcanic peninsula upon which the original parts of the city developed. The area has dramatic volcanic topography interspersed with small bays and sandy beaches. The core of Gold Mohr measures about 1.9 square kilometers, of which approximately 25% is developable – either already occupied or has development potential for recreational and tourism facilities. The majority of the area is comprised of volcanic hills and desert terrain. There are 4.3 kilometers of coastline, of which 2.3 kilometer is sand beaches. In regard to existing development, there is a Sheraton Hotel, a beach bungalow complex, a beach club, a few small hotels and chalet complexes, restaurants, and outdoor food outlets. There is considerable potential for beach-based tourism development in Gold Mohr. For that reason, an urban design strategy for the area is currently underway



with the aim of maximizing tourism potential and helping guide the Governorate in its task of planning infrastructure improvements, preserving natural attractions, allocating sites to developers, and regulating development.

Specific actions that need to be taken to catalyze the development of the Hospitality and Tourism cluster in Aden include:

- Protection and Preservation of Historic Sites and Land Marks. With their historical buildings and dramatic landscapes, the Crater and Tawahi neighborhoods are critical to Aden's tourism development. Government should develop plans and regulations to protect these areas from development that can harm their historic and commercial assets like industrial development and the construction of informal housing. Moreover, efforts should be taken to improve the flow of traffic and enhance pedestrian access. In Crater, for example, there is potential to improve the pedestrian environment by enlarging the square by demolishing a number of semi-derelict buildings. This would also link the square to the Military Museum, and help to create a strong civic focus for the area. The area suffers from traffic congestion and its narrow streets are not suited to today's traffic demands. Either there should be targeted upgrading to enable widening of a number of key streets or there should be a more effective traffic management scheme with possibly some rationalization of land use in order to reduce the traffic demand. In Tawahi, the older building stock is in a poor state of repair, and this is especially unfortunate in the case of the hillside dwellings in the western area. There is considerable scope for renovation of existing stock to provide good quality, well-designed residential development.

- Protecting and Developing Aden's Beachfront. The unchecked construction of housing and other structures in Gold Mohr would compromise the image of the city as a tourism destination and result in the permanent loss of valuable land. As such, it is critical that a moratorium on development be upheld until a detailed planning and development strategy for the area is completed.

- Enhancing Public and Private Partnership in the Tourism Sector. In Yemen, partnership and coordination between government officials and private entrepreneurs in the tourism sector has yet to reach satisfactory levels of efficiency and effectiveness. It is true for tourism promotion, the organization of cultural events, the protection, conservation and exploitation of cultural assets, the facilitation of tourism investments, and the development of human resources for the tourism industry. No one is in charge of assessing the challenges faced by the local tourism industry and offering adequate solutions that can



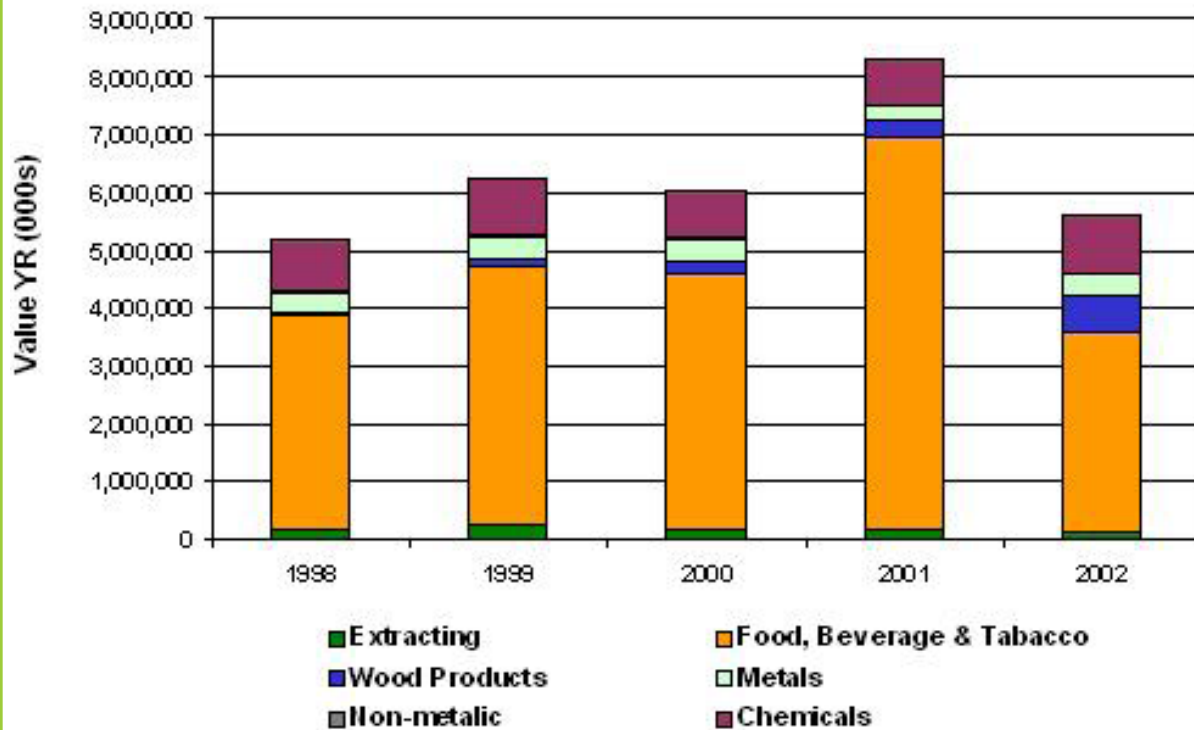
be shared among all the parties concerned. With the development of tourism, appropriate institutions should be established to promote partnership and to facilitate coordination. Two initiatives could be particularly helpful: (i) the Governorate should establish a High Commission for Tourism Development and Operations to support the development of the tourism sector, assess its operational needs, facilitate the activities of hotels and other tourism establishments, and assist the tourism industry to deal with local social and economic realities; and (ii) the Chamber of Commerce and Industry should establish a formal tourism industry chapter and sponsor the creation of local branches of the Yemen Hotel Union and the Yemen Travel and Tourism Association.

- Improving the Quality of Tourism Services. The quality and consistency of tourism services should be improved to meet international standards. This must be achieved and maintained in order to ensure that the city can offer the needed capacity and quality to meet growing international demand. The establishment of an Aden branch of the National Hotel and Tourism Institute (NAHOTI), located in Sana'a, should be considered as a means of improving technical and operational skills in the tourism and hospitality industry.

#### ***Aden's Manufacturing Cluster***

Aden's consumable and durable goods manufacturing subsectors rely on demand in local and national markets and to a limited extent, regional export markets, particularly in East Africa. Firms active in these subsectors are, public, public/private (mixed), and private, and cover the range of scales from micro to large (over 50 workers) with the majority (over 90%) falling in the micro and small category

## Composition of Aden's Manufacturing Sector



employing less than 10 workers. Aden's manufacturing and industrial production is a growing cluster that is dominated by the Food/Beverage/Tobacco sector. Indeed, it accounted for the majority of total industrial production in 2002, followed by Chemicals, Wood Products, and Metals. The quality of these products varies, but currently the majority remains basic and only suitable for meeting demand in the lower income local market.

**Aden's Food/Beverage/Tobacco Sector:** The Food/Beverage/Tobacco sector dominated industrial production between 1998 and 2002, but experienced uneven growth. Major products included cigarettes (Tobacco); soft drinks and distilled water (Beverages); and flour, bran, lobster and fresh & frozen fish (Food Industries). Most key products are semi-processed commodities suggesting opportunities for Aden to explore increasing its production value through further processing, branding, packaging and other forms of differentiation for local and export markets.

Aden's tobacco sector consists of the production of only one product – cigarettes – whose production value represents 86% of the entire food/beverage/

tobacco sector in Aden in 2002. The total value of Beverages, which is composed almost entirely of distilled water and soft drinks, experienced a sharp decline in 2002.

The total value (YR) of all categories of non-fish food industries in Aden also decreased sharply in 2002. Production of spices increased slightly annually, while the largest contributors, flour and bran, dropped to zero. Production of lobster appears to have remained steady.

**Aden's Chemicals Production Sector:** Aden's Industrial Chemicals production, which grew at 3.9% annually from 1998-2002 to 18% of Aden's total industrial production in 2002, is driven almost exclusively by two major products: paint and plastic footwear. The value of paint production increased 32.6% during the period while the value of plastic footwear production declined by 25% over the same period. Interviews with the producers of plastic footwear revealed that although the industry is declining and producers are struggling to survive, innovative strategies could change that. Currently one of the major products is plastic beach shoes but reportedly there are few varieties produced and nothing to compete

with the more stylish shoes available from abroad. A concerted effort to introduce new, more stylish options and even marketing the traditional “Aden” style differently are strategic options worth exploring. The fundamental challenge is that innovative, strategic thinking and real business strategy skills are lacking on the part of most of Aden’s business owners. Even the business owners themselves name business strategy and management as one of the top priorities for improving Aden’s competitive advantages in the survey conducted as part of this assessment.

Aden’s Metal and Non-metal Industries: Overall, Aden’s metal industries remained stagnant from 1998-2002, but the dock yard products subsector grew by about 15% annually over the same period). Aden’s non-metal industries including ready-made concrete, cement, tiles and bricks declined substantially over the period.

Aden’s Wood and Wood Products Sector: Aden’s wood and wood products sector increased dramatically from 1998 to 2000, catapulting the sector to Aden’s second largest. It grew an average of 91.2% annually during the period, meriting a closer look at what specific products are fueling the growth.

Related to Aden’s manufacturing growth is the development of the base-commodities processing industry. Aden’s strategic location and the growth of its port facilities and the volume of their throughput provide a critical prerequisite for attracting investment in the base-commodities processing sector. Significant growth has taken place in the production volume of the base-commodities sector in Aden, driven by declines in shipping cost and improved cargo handling efficiency at the port. To date, three major process-

ing/packing plants have set-up in Aden and have collocated adjacent to the Ma’alla terminal. Additional applications for the set-up of new plants are pending approval, which has been slowed down as a result of land area limitations with facilitated access to cargo handling facilities. It is clear from such demand that this sector will grow significantly in the near future and especially if dedicated and well services land areas with direct cargo terminal access are allocated and developed to accommodate this demand. Adding more processing plants in the Ma’alla area has become unfeasible as a result of the negative impact in the area of traffic congestion, pollution and inappropriate activity mix in the Ma’alla District which has been caused by the clustering of existing processing activities there.

It is expected that demand for the set-up of a range of base-commodity processing facilities will increase dramatically during the coming 10 years that could transform Aden into a national hub for the this activity to meet the total demand for such products in the national market and gradually, regional markets. In order to accommodate the unleashing of potential growth in this sector, it is recommended that a dedicated estate be developed with direct access to a bulk cargo handling terminal with a phased expansion option to relieve pressure off the Ma’alla terminal and facilitate the gradual transfer of existing processing operation from this central commercial/residential district. The facilitation of the operation of firms in this sector and the streamlining of the business and regulatory environment they operate within is also recommended, with the ultimate aim of enhancing the competitiveness of their products in local and regional markets.





# IMPLEMENTATION

## *Institutions and Infrastructure for Growth*

The best way for recommendations to be developed for creating the conditions in Aden for sustained regional productivity growth and for cultivating Aden's regional clusters of competitiveness is through a participatory process in which groups, including private and public sector leaders, and representatives of relevant institutions for collaboration, come together to first analyze the current situation, define priorities and then design solutions with clear allocations of responsibility. The leaders in Aden will ultimately be responsible for periodically updating, implementing and monitoring their strategy for economic development.

The leaders of Aden have already taken an initial pass at summarizing and prioritizing some high level strategic actions and investments that they are considering over the short, medium and long term. The sequential implementation of the series of recommended actions is designed to trigger subsequent local economic development outcomes.

### **Stage 1**

Establish an Organization for Economic Development that Helps Coordinate the Process: A formal organizational structure and process for working on economic issues helps maintain a consensus behind an economic strategy through periods of economic and political change. Aden needs to make its organizational architecture explicit, with clearly defined areas of responsibility. Currently the Local Economic Development Department is understaffed and under-resourced and will need to be strengthened if it is to play a key role in cultivating regional clusters.

Ensure Strong Leadership from a Diverse Group of Aden's Leaders: Strong leadership committed to regional economic development is needed to ensure that companies, knowledge centers, governments, and collaborative institutions contribute to their full potential. Leaders are found in the public sector, private sector and civil society. Both government and business leaders need to invest in a more effective and ongoing dialogue with each other and design a strategic process for change that combines ongoing, data-based analysis of Aden's current competitive position with broad-based leadership, short-term wins, and clear performance metrics. This ongoing dialogue must be the centerpiece of Aden's economic development strategy, as these city leaders iden-

tify, prioritize and solve the economic and related issues confronting the region.

Re-Initiate and Sustain a Healthy Rate of Growth in Transshipment Volume: A sustained increase in transshipment throughput at the port of Aden primarily in containerized cargo will function as a trigger for a number of related economic activities at the Free Zone and indirectly, in the local economy. This would require a high level of operational efficiency, responsive level of capacity and cost competitiveness at AFZ and airport facilities and an optimal, sustainable and comprehensive system of coordination between authorities.

### **Stage 2**

Invest in Specialized Research Institutes and Cluster-Specific Institutions for Collaboration: These institutions for collaboration facilitate the flow of information and resources throughout the cluster. Diverse groups (e.g. rival firms, related and supporting industries, universities and research centers, training institutions, government) contribute to cluster strength, but their contribution is not automatic. Each cluster activated should have a world-class research program and training institute either within an existing organization or within a new institution, where cluster innovations can be researched and implemented.

Trigger Growth in the Maritime Industries Cluster: Growth in the number of vessels calling on Aden will lead to growth in demand for the products and services of Aden's evolving Maritime Industries Cluster which could be further strengthened through the development of a modernized dry dock facility. The evolution of an efficient, cost competitive and high quality Maritime Industries Cluster in Aden supported by a modern dry dock would contribute further to the attractiveness of the seaport and could contribute further to the growth in the number of calling vessels.

A Reduction in Shipping Cost and an Increase in the Number of Shipping Lines Calling on Aden: Growth in transshipment throughput usually contributes to a reduction in shipping cost to a given destination. The growth in the density of transshipment activity at a port attracts other shipping lines to that port and encourages existing shipping lines to expand the

## Implementation Strategy Overview

Stage	Actions
1	<ul style="list-style-type: none"> <li>• Establish an Organization for Economic Development that Helps Coordinate the Process</li> <li>• Ensure Strong Leadership from a Diverse Group of Aden's Leaders</li> <li>• Re-Initiate and Sustain a Healthy Rate of Growth in Transshipment Volume</li> </ul>
2	<ul style="list-style-type: none"> <li>• Invest in Specialized Research Institutes and Cluster-Specific Institutions for Collaboration</li> <li>• Trigger Growth in the Maritime Industries Cluster</li> <li>• A Reduction in Shipping Cost and an Increase in the Number of Shipping Lines Calling on Aden</li> </ul>
3	<ul style="list-style-type: none"> <li>• Stimulation of Growth in Import/Export Reliant Manufacturing Activities</li> <li>• Enhanced Incentive for Warehousing and Re-Export Functions to Locate in Aden</li> </ul>
4	<ul style="list-style-type: none"> <li>• Mobilize Growth in other City-Based Linkage Services</li> <li>• Growth in Passenger and Cargo Throughput at the Airport</li> <li>• Stimulation of Growth in the Hospitality and Tourism Cluster</li> </ul>
5	<ul style="list-style-type: none"> <li>• Triggering the Growth of Strategic Sectors (ism, immigration)</li> </ul>

Source: Adapted from Ala'edeen Shawa

range of their services and vessel types/sizes calling/serving a port to include both mother vessels as well as feeder vessels.

### Stage 3

Stimulation of Growth in Import/Export Reliant Manufacturing Activities: A decline in shipping cost and an increase in the efficiency and capacity of shipping and cargo handling services at the port will increase the viability and competitiveness of Aden-based manufacturing and processing activities that are heavily reliant on the import of raw materials or the export of finished or semi finished products. Improvements in the performance, quality and cost competitiveness of services offered by the city-based trade support services cluster will further contribute to the enhanced competitiveness of export/import-reliant manufacturing and processing activities. Beneficiary sectors include base-commodity processing and consumer and durable goods manufacturing. They could also include natural resource processing (stone/marble and minerals processing, fish processing and petrochemicals production).

Enhanced Incentive for Warehousing and Re-Export Functions to Locate in Aden: An increase in the number of vessels calling on/serving Aden will lead to increased competition among shipping lines and will improve shipping services, increase the frequency of ship calls on the port and will reduce shipping

cost. Such improvements will contribute to a reduction in operating cost and an increase in operating efficiency of warehousing, manufacturing, assembly, and re-export activities. This environment would be further enhanced through the improvement in the quality and cost competitiveness of city-based trade and warehousing and re-export support services.

### Stage 4

Mobilize Growth in other City-Based Linkage Services: Growth in AFZ-based activities (warehousing, manufacturing and re-export) as well as in city-based export/import activities will generate significant demand for the products and services of city-based linkage services such as trade support services (banking, shipping and freight forwarding, insurance, law and cargo handling, and logistics services) and warehousing and re-export support services (packaging materials and products, printing, IT-based supply chain management and general maintenance services). Such demand will invigorate these clusters and will result in the enhancement of the quality and cost competitiveness of their products and services which in turn would contribute to enhancing the competitiveness of the AFZ and its attractiveness to its investors. These linkage services are expected to function as the conduits for channeling economic value to the city economy through direct employment of city residents and through the direct and indirect (subcontracted) engagement of

a network of small and medium sized suppliers of related products and services.

Growth in Passenger and Cargo Throughput at the Airport: Demand for an effective multi-modal transport system (sea, air and land) will gradually evolve as growth is achieved and sustained in port throughput, warehousing and re-export activities as well as in the scale and scope of the operations of city-based export and import firms. Such growth will also lead to growth in demand for additional air travel service providers and an expansion of capacity at the airport to meet the needs of business travelers.

Stimulation of Growth in the Hospitality and Tourism Cluster: As sustained growth in AFZ and city-based economic activities begins to take hold, demand will also grow for city-based hospitality services. Improvements in the quality and scope of services provided by the hospitality cluster will contribute directly to improving the quality of life in the city, its attractiveness to national and international investors as a suitable place for long-term residence and will lay the preliminary foundation for viable future growth in the activities of a potentially vibrant business and cultural tourism industry. The hospitality cluster would also function as an effective conduit for channeling economic value to be generated by the AFZ to typically marginalized segments of the city's population.

## **Stage 5**

Triggering the Growth of Strategic Sectors: As growth in AFZ-based economic activities is achieved, it is anticipated that demand would also grow for increasingly more sophisticated IT support services. Activities in the area of logistics and supply chain management in addition to a range of higher technology manufacturing and services operations at the AFZ and in the city will drive demand for a range of high value added IT services and will provide sufficient incentive and opportunity for a local IT sector to develop the quality and scope of its services. This outcome could potentially provide a viable foundation upon which advancing local IT firms could begin to test regional and global markets. Other strategic sectors could also begin to reflect viability and should thus be detected and supported. Growth and enhanced competitiveness of such strategic sectors will enable Aden to diversify its economic base and to gradually reduce its reliance on a single source for sustaining future growth.

**Infrastructure for Growth**  
***Strengthening the Maritime, Tourism, and Manufacturing clusters requires a solid physical growth plan and targeted investments in infrastructure.***

In 2004, Aden embarked on the development of the

Aden Master Plan 2025 to establish a framework through which to address the physical challenges facing the city. Three master plan scenarios were devised in order to provide differing emphasis for the future development of Aden, taking into consideration the existing residential and economic assets and the anticipated growth in each by 2025. After deliberation and debate, it was decided that the preferred vision for physical growth was one emphasizes ease of access to the core economic infrastructure of the city, specifically the port, airport and free zone.

The revised and updated Aden Master Plan 2025 carries with it many advantages. Strengthening access and flow among the city's main transport hubs, the airport, seaport and container terminal, will facilitate expansion in the Maritime cluster. Moreover, provision of additional utility capacity and high quality infrastructure will promote the Manufacturing, as well as the Hospitality and Tourism cluster. Finally, a more rationalized mix of land uses and open space will permit an improved quality of life for residents and tourists alike.

Roads: The land transport system is highway-based and movement of goods and people is by trucks, buses and taxis. The car ownership level in the Governorate is around 100 vehicles per thousand of population, which is the highest car ownership level in Yemen. In 2001, there were approximately 70,000 registered vehicles in the Governorate of Aden, out of which 41,000 were private cars, 8500 taxis and 20,500 were registered trucks. In the last decade car ownership has been increasing at a rapid pace in the Governorate, with numbers of cars and trucks growing at 6% p.a. and growth of taxis has been at around 12% per annum.

This increase in mobility together with the city's coastal location and its mountainous setting have created some formidable constraints to the smooth flow of people and goods and a number of critical pinch points are beginning to emerge. For example, increasing car ownership and use has resulted in widespread traffic congestion on the major arterial roads of the city and in centers of commerce and trade. However, congestion appears to be mainly related to the interaction of a number of issues including the age and maintenance of the vehicle stock, regulation enforcement, driver behavior and lack of effective traffic management measures rather than heavy traffic volumes alone. One response to help reduce congestion and improve environmental conditions has been the introduction of restrictions on truck movements during day time hours: heavy goods vehicles are now confined to specified times of day on certain route within the city.

A new highway between Amran and Aden is at an advanced stage of planning. This road will be about



460 kilometers long and form the main axis between the north and south of the country, linking many of the principle cities of Yemen, notably Sana'a, Dhamar, Taiz and Aden. The road will be a 3 lane dual carriageway built to motorway standards, with a limited number of grade separated junctions.

**Airport:** Aden International Airport (AIA) has undergone significant facility rehabilitation and expansion. The airport has been equipped to handle a relatively good level of transit and final destination aircraft, passenger and cargo volume. However, as of 2002 it was utilizing less than 30% of its capacity and handling an average of only 69 flights per week. The current volume is generated by Yemenia's international and local flights, which represents over 60% of flight and passenger volume while the remainder is generated by regional airlines including Royal Jordanian (2 flights per week), Egypt Air (1 flight per week) and Djibouti Airlines (1 flight per week).

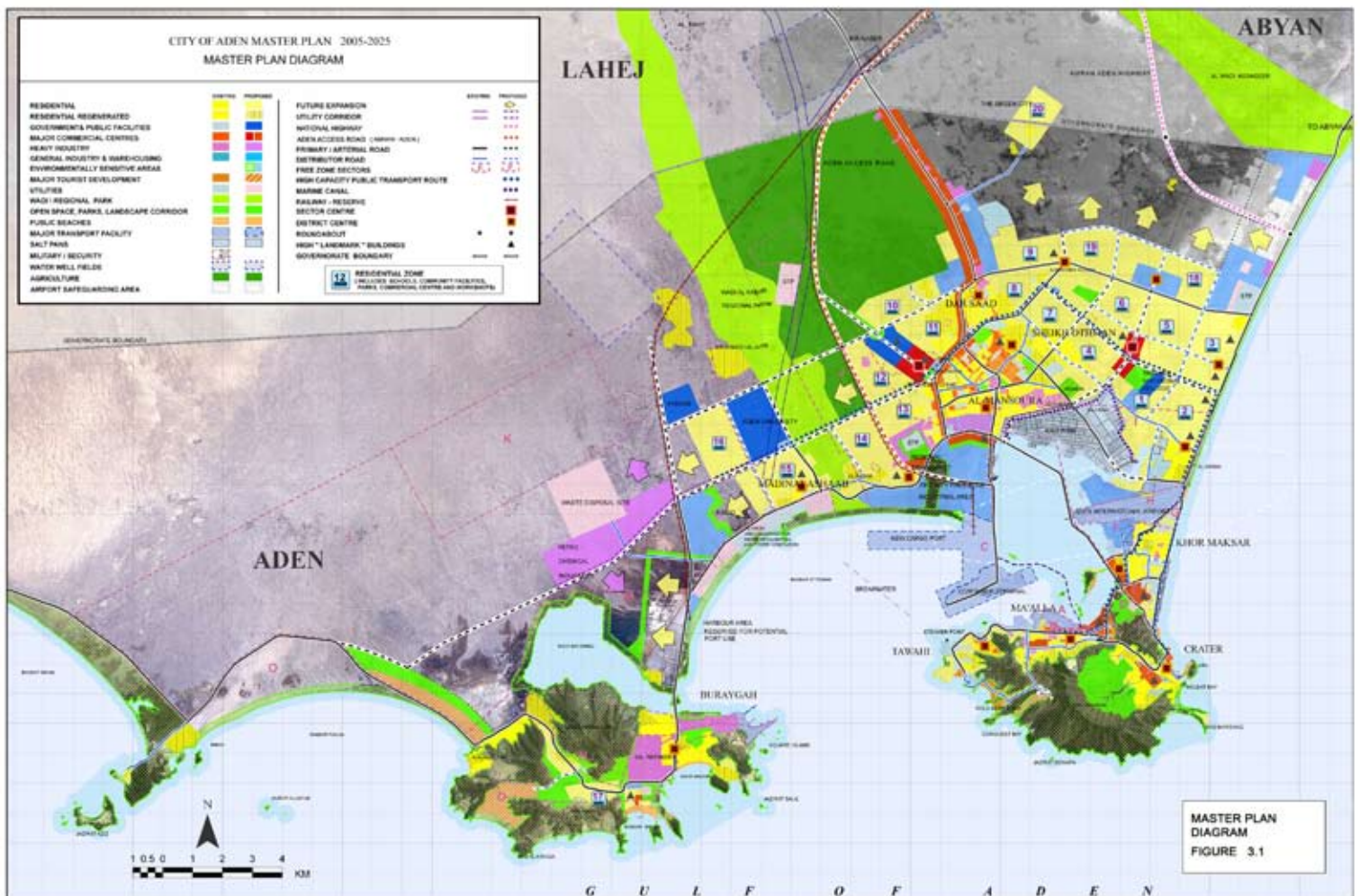
The Aden airport is situated 5 kilometers north of the city, and has a single 3,100 meter runway, full length parallel taxiway, and a main passenger apron with other disused aprons to the west. It has a newly refurbished passenger terminal of approximately 9000

square meters (150 x 60) – single level horizontally segregated, with a second level for offices and shops. The most imposing feature of the airport is the new, fully equipped Control Tower and ATC Building. Both buildings are fully equipped with new consoles, telecommunications and approach control.

The airport is owned, managed and operated by the Civil Aviation and Meteorological Authority (CAMA), which also includes Air Traffic Control Services. Air BP, an aviation fuel supplier, operates the only non-government owned facility on the premises. The airport has about 650 staff.

Several buildings are in poor condition, including the fire station, the chemical storage facilities, the cargo building, and the old British terminal. Mention has been made of the latter's architectural interest with a view to its possible rehabilitation. However, the preservation of airport buildings is generally not recommended where they remain in a location which might constrain future expansion, as is the case in Aden

The land earmarked for the development of a cargo village remains neglected and uncleared, with equipment and buildings in poor repair. In order to realize



**Aden Master Plan 2025**



## Existing Road Network in Aden

the development of freight or other airport-related development on this site, the land must be improved by clearing and providing basic services, infrastructure and security.

The airside system has good very long-term capacity. A single runway can handle up to 40 or more aircraft movements per hour, compared to the 20 or so daily movements currently experienced at Aden. There is no evident capacity restriction up to and well beyond the timeframe of the Aden Master Plan 2025. The passenger terminal has a total (domestic + international) capacity of about 950 passengers (two-way) and 450 (one way). One-way international capacity is declared as 240. Although the total capacity of the building is adequate, inspection of the Tower Logs confirms that there are occasions when one-way flows exceed 300 passengers per hour. Consideration may therefore have to be given to development of the terminal, in the medium term. The airport terminal is lacking in good shops, catering and other non-aeronautical facilities, which could generate revenue and improve the quality of the experience.

Based on information from the General Authority of Civil Aviation and Meteorology, AIA handled 2,047 local flights and 3,128 international flights in 2002. Based on this data, the number of international flights handled by AIA grew from just over 500 in 1999 to over 3,500 in 2001 while local flights de-

clined from just over 2,900 in 1999 to just over 2,000 in 2003. The number of local passengers traveling through AIA increased from 50,000 (inbound) & 53,000 (outbound) in 2003 to 59,000 (inbound) and 56,000 (outbound) in 2006. The number of international passengers who traveled through AIA in 2003 decreased from 86,000 (inbound) and 95,000 (outbound) to 40,000 (inbound) and 49,000 (outbound) in 2006.

In order for Aden to fulfill its role as the economic capital of Yemen, AIA's ability to grow its business and to fully participate in accommodating the anticipated growth in demand for high quality air transport services generated by the Free Zone and the city is very critical. AIA's facilities have recently been upgraded but it continues to utilize only 30% of its operating capacity. Its share of domestic flights as well as international flights has stagnated or declined in some cases. It has not been able to successfully attract and maintain the business of regional or international airline clients even though it holds the potential to do so supported by its high quality facilities, the location of Aden and the potential for growth in business travel activity driven by anticipated growth at the Free Zone and the growing scale of Arab tourism to Aden and Southern Yemen.

Air traffic within Yemen is currently dominated by Yemenia through its domestic monopoly of both passengers and cargo. The Open Skies policy was

introduced at the end of 2005 for cargo in all airports and in mid-2006 on a pilot basis in Rayyan and Aden Airports for passenger traffic. This allows other carriers to operate in Yemen, which will likely spur increased use of the Aden Airport. Providing AIA with a higher level of autonomy in the area of promotion and marketing and streamlining the Civil Aviation Authority's (CAA) procedures for reviewing and approving applications submitted by international and regional airline companies for initiating passenger or cargo operations through Aden will contribute significantly to resolving this issue and would enable AIA to gradually fulfill its economic potential and contribute to the competitiveness of the city.

**Seaport:** It is evident that there is enormous potential for the development of marine facilities in the Aden area. Aden has one of the world's great natural harbors with a superb position right on the world's busiest trade route, natural protection, easy construction conditions and very little maintenance dredging. As such, it is vital that the parts of the harbor which are suitable for port development are kept for that purpose and not used for other facilities. Moreover, the Little Aden Refinery area should be kept for oil handling and that the whole of Caltex Island should be reserved for container handling.

The Ma'alla terminal is close to capacity and additional deep water berths will be needed in the near future. The Yemen Ports Authority has developed a scheme to develop new facilities combined with a new ship repair facility to the north of the Ma'alla channel. This would rely on the use of the causeway by heavy vehicles. In the longer term, cargo facilities could be built immediately to the west of Caltex Island, although this area requires protection from wave action. Certainly there is the need to retain space for around two kilometers of general cargo and dry bulks berths, including a heavy lift facility for exceptional project cargo.

Any potential limestone export facility would be dusty, noisy and generate a great deal of road traffic. It should therefore be kept away from centers of population. Probably the best approach would be to develop a dirty cargo area between Little Aden and the power station/desalination plant. This area could include dedicated cement import and processing facilities. Space for a total of approximately six berths would be needed either as 2 kilometers of alongside quay or as a series of finger jetties. Some wave protection would be needed.

In order for the Port of Aden to effectively gauge the level of capacity of its current services to vessels and to continue to responsively modify them or alert other operators of the need to do so, it must be enabled to track total vessel activities at the port. This would include oil tankers calling at the Oil Terminal (OT),

container vessels calling at the Aden Container Terminal (ACT) and the Ma'alla Terminal (MT), general cargo vessels calling at MT and other berths in the inner harbor as well as fishing, passenger (commercial and private) and other types of vessels using the port. It must also be enabled to keep track of the capacities of all the terminals and berthing facilities within the port area and be informed of future plans by terminal operators to expand/modify capacities and services.

As shipping traffic grows and as the size of vessels calling on Aden increases, the port will begin to experience capacity bottlenecks. In 2002, about 850 container, 650 tanker and 400 general and bulk cargo vessels called on the port. The number of container vessels declined considerably after October 2002, but recovery is anticipated as a result of a reduction in insurance rates driven by Aden's war risk ranking and further recovery is also expected as tangible steps are taken by the port to address other issues related to security, terminal efficiency and overall quality and cost competitiveness of port services.

As growth rebounds and as the port begins to reestablish itself as a transshipment hub and as the Free Zone begins to function as a regional warehousing and re-export center, the number of vessels - particularly container vessels could realistically increase to over 1,000 and the percentage of large size mother vessels (6,500 Twenty foot Equivalent Units (TEUs) and higher) will follow. Such growth will lead to the development of bottlenecks at the three port channels and at the two existing container/cargo terminals. The number of general and bulk cargo vessels is also expected to increase gradually but not as steeply as that of container vessels and will be driven by demand generated by base-commodity processors that have been setting-up operations in Aden. In addition, the port is expected to handle a larger percentage of the country's flow of imports and the anticipated growth in exports.

In addition, growth in demand for additional terminal capacity is also anticipated as new investment is made in natural resource, petrochemicals and base-commodity processing activity. This will require that the port accurately plans for such growth in demand and move efficiently and in a timely manner to introduce the necessary adjustments in port services capacity, channel depth/width, terminal capacity and efficiency as well as the set-up of new terminals needed to absorb such growth in demand.

**Aden Free Zone:** Despite strong fiscal incentives, the Aden Free Zone has experienced a very low level of investment activity during the 13 years since its establishment. Several issues have impeded the full development of the AFZ, including the lack of de-





velopment vision and harmonization with the City of Aden.

The space currently under the AFZ (32,000 ha) is too large vis-à-vis the financial capability of the Zone Authority to establish first class infrastructure. Such as vast amount of land, especially without a strategy to phase its development, renders the investment in infrastructure too high. The supply of infrastructure needs to accompany the occupancy of the area to provide a sufficient rate of return. Moreover, the lack of continuity between the different parcels of land is an additional difficulty affecting the ability of both the Governorate and the Authority to provide serviced land to investors.

A vision, an updated master plan and a phasing strategy are critical. The Free Zone occupies the majority of vacant land in Aden (thereby severely limiting the city's urban expansion possibilities) and includes areas which the Free Zone does not effectively control (e.g. Aden airport is controlled by the Civil Aviation Authority, the Aden Container Terminal and the Port of Aden are controlled by the Ministry of Transport's Aden Gulf Port Corporation). A revision of Free Zone landholdings and a clarification of its relationship with Aden Governorate and the Ministry of Transport are therefore critical. In particular, a formalized institutional arrangement between the Free Zone and the Governorate, based on a shared vision and clear responsibilities for enabling growth, would require harmonized land use planning and asset management roles, and would allow for a revenue-sharing scheme between both entities to ensure adequate infrastructure and service delivery to the benefit of the city and Free Zone.

**Industrial Areas:** Access to industrial land was identified by 48.8% of surveyed firms in the Yemen ICA as one of the most severe constraints to doing business. The problem figures prominently in Aden – in

fact it is the third most important constraint to doing business in the city. The main avenue for improving this situation is to resolve provide infrastructure and utility services to industrially zoned areas, especially in the Free Zone. An additional recommendation is to further develop the City Periphery Industrial Zone, located along the Abyan Road, which has been designated for industrial uses in the Master Plan, is well located, and is unencumbered. There is currently a major carpet factory in operation, which could serve as anchor tenant. In both cases, it is recommended that the development of the zones include strong private sector participation.

**Utilities:** The power supply deficit has been identified as one of the most critical obstacles and the leading infrastructure constraint to doing business in the whole of Yemen. In Aden, the situation is particularly acute as the available capacity of 199MW (relative to an installed capacity of 228MW) would barely meet the needs of Aden's residential customers. In the face of such limited generation capacity, the large majority of manufacturing and commercial firms rely on out-of-system power generation via private diesel-powered generators. Out-of-system generation in Aden is conservatively estimated by the PEC Aden branch at over 100MW for large known investment projects. Since the reduction in diesel subsidies in 2006, significant demand has built up for power connections by manufacturing and commercial customers, but the PEC has not been able to meet the increased demand. The question of power reliability is especially critical. Power outages and staged black-outs when demand peaks elsewhere in the country have been identified as a major problem by investors. The prevailing view among investors is that "dedicated power supply in Aden is a must if the city is to ever live up to its potential as the commercial capital of Yemen".

Power is a critical ingredient for the Aden Free Zone development. Currently, there is a 14MW privately-managed power generation station dedicated to the Free Zone, but is deemed totally insufficient. A large steel factory located in the Free Zone and in operation since 2005 has built a power generation capacity of 16MW, with plans to expand to 23MW and sell the surplus. In the two years since this factory went into operation and despite its somewhat unattractive location within the Free Zone area, the appeal of private power generation has managed to attract several new investment projects (currently under construction) to locate around it

### Investment Priorities

The LED Strategy and Mukalla Master Plan 2025 resulted in the identification of ten priority investments in the city of Mukalla focused on (i) core economic assets and clusters and (ii) strategic infrastructure investments.

**CORE ECONOMIC ASSETS AND CLUSTERS**  
(Costs in 2008 US dollars)

<b>Project</b>	<b>Estimated Public Investment</b>	<b>Description/Comments</b>	<b>Time Frame</b>
Off-site Infrastructure for Aden Free Zone Light Industry and Warehousing (Zone J)	\$15 million	Roads, power, water, and wastewater networks to and within 760 hectare site, to allow international concessionaires to develop and manage specific blocks. Site is secure, flat, and without obstructions and is extremely well located both for port and container terminal access and for proximate labor pool. Preliminary designs and cost estimates completed in 2007.	2008 to 2012
Aden Seaport New Berths and Cargo Village	\$90 million	Major project to enhance general cargo port to meet international standards. Location near ACT. Will require re-negotiation with international port operator. Concept designs completed. Requires feasibility and engineering studies.	2009 to 2014
Aden Container Terminal Concession Expansion	TBD	Extension of quays westward in addition to dredging, cranes, and marshalling yards. Preliminary plans complete. Minor upgrading of power and other infrastructure required.	2009 to 2011
Off-site Infrastructure for Bulk Commodity Port & Raw Materials Processing Zone and Port.	\$4 million	Location seaside along Bureiqa Road. Site secured and free of encumbrances. Requires interested private sector investor and operator. Feasibility studies required.	2011 to 2014
Off-site Infrastructure to Develop City Periphery Industrial Zone	\$5-10 million	Designated industrial zone on unencumbered land along Abyan Road. Major carpet factory in operation, which could act as anchor tenant. Requires strong interest from private developer. Pre-feasibility and environmental studies required.	2010 to 2012
Enhanced Bonding and Warehousing Facilities in Tawahi	TBD	Improved warehousing and modernized bonding regime, including improved access and open storage. Design and feasibility studies required.	2011 to 2013
Cargo Village and Cold Storage at Aden Airport		Access road and lighting completed. Requires agreement with military. Design and feasibility study required.	2011 to 2013

Source: Aden Priority Economic Development Investment Plan

**STRATEGIC INFRASTRUCTURE INVESTMENTS**  
(Costs in 2008 US dollars)

<b>Project</b>	<b>Estimated Public Investment</b>	<b>Description/Comments</b>	<b>Time Frame</b>
<b>Electricity:</b>			
New 20-40 MW Power Generation Station in Aden Free Zone	\$2-4 million	Additional power needed to supply expected development of ACT and Free Zone. (See Core Economic Assets projects). Engineering designs and feasibility study required.	2009 to 2011
132 KV Line Hiswa – Al Arish and 33 KV cables to Aden Peninsula	\$45 million	17 kilometer, 132 KV overhead line to replace 33 KV line. Right-of-way reserved. Includes substation at Al Arish, 33KV cables to Aden Peninsula, and switch gears at Shenaz and Khormaksar substations. Will resolve overloading and reduce losses. Complete feasibility study in 1995 by consultant, updated cost estimate in 2007.	2008 to 2010
33 KV Network and Substation Improvement	\$15.5 million	Package of four sub-projects. New sub stations at Al Khusaf, Al Hashed-Cabuta, and Bir Fadhl-Mansoura, plus rehabilitation of Hedjuff primary sub station. To meet increasing power demand and overloading of old sub-stations. Feasibility studies prepared by PEC.	2008 to 2010
11 KV Network Rehabilitation	<b>\$9.5 million</b>	Requires new 11 KV cables, transformers, and ring main units. To meet increasing power demand and overloading. Project designs by PEC.	<b>2008 to 2010</b>
<b>Water:</b>			
Urgent Source Development & Conveyance	<b>\$10 million</b>	Due to increased water demand and drawdown and increasing salinity of existing wells, exploration, new wells, and transmission lines needed in all four of Aden's well fields, including preparations for treatment plant to reduce salinity.	<b>2008 to 2012</b>
Urgent System Rehabilitation to Increase Pressure and Reduce Leakage	<b>\$5 million</b>	System losses estimated at 30%, with low and uneven pressure. Detailed study required.	<b>2009 to 2012</b>
<b>Wastewater:</b>			
Complete Rehabilitation and Increased Capacity of Mansoura Treatment Station	<b>\$8 million</b>	Mansoura plant cannot meet secondary treatment standards. By-passing sometimes necessary. Project design and feasibility needed. Should include study of re-use of treated effluent for irrigation of public parks and green areas throughout Aden, especially to estimate financial gain (by reducing need for drinking water for irrigation).	<b>2010 to 2012</b>

Source: Aden Priority Economic Development Investment Plan



Project	Estimated Public Investment	Description/Comments	Time Frame
Roads:			
New Entrance to Aden Highway (western by-pass from Sanaa Road to Bureyqa Rd)	\$15 million	15 kilometers length and 90 meter total right-of-way, limited access, includes three junctions. Proposed priority investment in Aden Master Plan; right-of-way reserved and surveyed. Designs being prepared. Will provide by-pass from existing congested highway through Sheikh Othman, secure excellent access from all parts of Yemen to Free Zone and Container Port, and will promote planned westward expansion of city.	2008 to 2010
New Arterial Road for City Extensions in Northeast Quadrant	\$5 million	7 kilometers length and 50 meter total right-of-way. Recommended in Master Plan. Serves new residential zones 1, 2, 3, 4, 5, 6, and 7 and connects Sheikh Othman with coast road north of Al Arish.	2009 to 2010
New Arterial Road for City Extensions West.	\$4 million	5 kilometers length and 50 meter total right-of-way. Recommended in Master Plan. Serves new zones 12 and 13 and Aden University site, main junction with Project B8. Right-of-way secure and surveyed, designs completed, and sub base along 1.8 kilometers implemented.	2009 to 2010
Natural Gas Pipeline to Aden from Belhaf	<b>TBD</b>	300 kilometer pipeline would deliver natural gas to supply power stations and also provide cheap energy for industrial enterprises. Possible PPP.	<b>2012 to 2014</b>
Aden Causeway Widening	<b>TBD</b>	Widening of causeway from Caltex roundabout to Aden Hotel roundabout by two extra lanes plus breakdown shoulder, plus replacing associated water and power lines. Re-design of Caltex roundabout included. Design and feasibility study completed. Environmental impact study underway. Funding secured from Arab Development Fund.	<b>2008 to 2009</b>

Source: Aden Priority Economic Development Investment Plan

