

## **Infrastructure and Environment**

**The coordination of infrastructure and environment policies is part of a determined commitment to ensure economic and industrial development in Abu Dhabi is delivered in a sustainable way, with the highest standards of community safety and a protected natural environment.**

# **Urban Planning in Abu Dhabi**

## **Managing Urban Development in the Emirate**

### **Objectives**

The Emirate of Abu Dhabi is undergoing a period of rapid physical and economic expansion, expected to continue for the foreseeable future. As the local economy expands, the Abu Dhabi Government is committed to maintaining the cultural traditions of the Emirate, preserving its natural assets and managing urban development in a responsible way. To achieve this, the Executive Council is in the advanced stages of the development of a comprehensive urban planning policy, underpinned by a 25-year vision for the Emirate's physical environment.

The Abu Dhabi Government's two key objectives in the development and implementation of urban planning policy are:

1. To create an attractive, liveable and sustainable, managed urban environment in which all necessary services and infrastructure are provided in a timely manner.
2. To ensure a vibrant mix of cultures is able to flourish in Abu Dhabi's liveable spaces, while maintaining the unique traditions and culture of the Emirates.

### **Contribution to Abu Dhabi Vision**

The establishment of an effective, long-term strategy for urban planning and development in Abu Dhabi will contribute to the Emirate's broader vision by supporting continued economic expansion, enabling the absorption of an expanded population and the development of landmark developments that will attract international interest.

For Abu Dhabi to continue its path to the international business and tourism destination it is seeking to become, a professionally designed and well-managed urban environment is essential. The combination of world-class business facilities and accessible strategic infrastructure in an attractive, liveable environment is central to that vision.

### **Policy Drivers**

A range of ongoing demographic and economic trends are driving the development of a long-term strategy and effective framework for urban planning in Abu Dhabi.

These include:

- Continued expansion of the Abu Dhabi economy, driven by targeted Government policy and an emerging private sector, will see significant development in the Emirate in a range of new and existing industries. This will attract significant international interest in the Emirate as a destination, foreign direct investment and an increase in migration.
- Rapid population growth, driven and supported by ongoing economic expansion and diversification. Migration is expected to increase to provide the human resources required to achieve the Emirate's ambitious economic vision.

- Liberalized real estate and property laws, which are designed to create new incentives for property development in Abu Dhabi and generate unprecedented interest in the real estate sector.
- Significant foreign investment, in industry, tourism and property development which is generating a rapid growth in the number of urban and industrial projects in the planning and construction stage.
- Construction projects of unprecedented size, planned by private property developers in the Emirate. While urban planning has traditionally been the responsibility of Municipal Authorities, the sheer size and scale of recent and emerging developments warrants additional support from the highest levels of Government in Abu Dhabi. With a number of significant developments currently in the planning stage, a comprehensive urban planning framework is essential to ensure that the Emirate's natural and physical environment is protected in a period of rapid urban expansion.

## **Strategy**

### **1. A range of studies to understand and prepare for demand**

The Executive Council is currently commissioning a number of economic, cultural and organizational studies to gain an evidence-based understanding of the growing demand for urban development in Abu Dhabi and the best way to manage it. This research will map the growth in every sector of the rapidly diversifying economy, track and extrapolate demographic trends and assess their likely impact on urban planning needs. In addition, the Government will assess the current state of the Emirate's infrastructure and project its expected needs for the future. These studies will enable the Government of Abu Dhabi to understand likely demand for urban developments and infrastructure over a forecasting period of ten years, and make urban planning decisions accordingly.

In addition, further research will consider the most appropriate structure/s or body to oversee the implementation of an urban planning policy in the future.

### **2. Development of a 25-year urban planning vision for Abu Dhabi**

Informed by the studies identified above and the advice of international urban planners, the Executive Council will develop and publish a comprehensive 25-year urban planning vision for Abu Dhabi. This vision for the future of Abu Dhabi's physical environment will underpin the development and implementation of a rigorous urban planning framework for the Emirate. Ensuring the sustainability of individual developments and the entire urban environment will be central to these plans.

The urban planning framework will ensure that all future developments will be consistent with, and contribute to, the achievement of Abu Dhabi's urban planning vision.

It is expected that these plans will be published by the Abu Dhabi Executive Council in mid 2007.

### **3. Vibrant cultures in harmony with strong local traditions**

Informed by the studies above, the Executive Council will also seek to ensure that Abu Dhabi's urban environments facilitate a vibrant and harmonious mix of local and international cultures, while maintaining the rich Arab traditions.

### **4. Creating an efficient and effective structure for the development and implementation of urban planning policy in Abu Dhabi**

The Government of Abu Dhabi is currently formulating recommendations on the most appropriate regulatory and institutional framework to manage urban planning into the future.

### **5. Facilitating communication between the Government of Abu Dhabi and private property developers in the Emirate.**

It is essential that the public and private sectors work together to achieve the urban planning vision laid out by the Government. To facilitate this interaction, the Government's regulatory and institutional recommendations will ensure that active spaces exist for ongoing dialogue between the Government and the private real estate and property sector in Abu Dhabi.

## **Coordination**

The development and implementation of an effective urban planning policy will rely on coordination between the following public and private entities:

- Department of Municipal and Affairs, that has significant urban planning responsibilities.
- Executive Affairs Authority, that has been charged with the management of a significant urban planning initiative, consisting of an overarching plan and a set of regulatory and institutional recommendations on the management of urban planning within the Emirate.
- Abu Dhabi Tourism Authority, particularly the Tourism Development and Investment Company (TDIC), which is developing significant tourism properties and attractions in the Emirate. For example, the TDIC is currently overseeing the development of Saadiyat Island - a flagship project set to become an international tourism destination.
- Department of Transport, to ensure urban and transport planning decisions can be coordinated, and that new urban and industrial developments have access to efficient forms of transport.
- Abu Dhabi Authority for Culture and Heritage, to ensure historical and cultural sights are identified, accounted for and protected in urban planning decisions. Understanding the work of the Abu Dhabi Authority for Culture and Heritage in partnership with UNESCO is essential to ensuring that urban developments do not threaten the Emirate's rich and fragile historical assets. The recent discovery of archaeological sites on Saadiyat Island demonstrates the importance of identifying potential historical assets in the planning stage of a development.

- Private property developers, to ensure plans are consistent with the Government's 25-year vision for the Emirate and that Government is aware of the many projects in planning and under development.

## **Transport**

### **A Sustainable Network to Support Development**

#### **Objectives**

Whether a new factory needs to move its global products to market, a professional worker wants to get to work on time, or a tourist seeks fresh air at a pristine beach, an efficient and well-planned transport system is the critical factor to meeting these diverse needs.

The enormous growth and diversification that His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates and Ruler of Abu Dhabi, envisions for Abu Dhabi requires a highly sophisticated transport network that will move people and materials efficiently through the Emirate, in a way that contributes to the quality of life for all residents, businesses and visitors.

Transport policy-addressing roads, rail, ports, mass transportation, air travel and other infrastructure-is based on the following objectives:

1. Creating and delivering a world-class transport system that supports Abu Dhabi's broader social and economic ambitions, and meets the Emirate's needs for the future.
2. Developing a clear and appropriate allocation of responsibilities between the various public and private entities in Abu Dhabi involved in the delivery, supervision and management of transport services.
3. Delivering cross-portfolio visibility and effective information sharing between the public and private sectors to ensure transport decisions can support and influence real estate and industrial development in other areas.
4. Creating an appropriate structure for the Department of Transport to efficiently and effectively deliver the Emirate's transport vision.

Previously, Abu Dhabi's transport responsibilities were handled by a variety of entities, across both the local and Federal Government, including: The General Civil Aviation Authority (GCAA), Department of Civil Aviation, Department of Municipal Affairs and the Sea Ports Authority (SPA).

A newly created Department of Transport will cover the entire value chain and ensure fully coordinated planning in all aspects of transport policy and development.

#### **Contribution to Abu Dhabi Vision**

A sophisticated and well-planned transport system is critical to the ongoing growth and diversification of the Abu Dhabi economy. The Executive Council has charged the Department of Transport to meet its objectives in ways that are consistent with its stated pillars, emphasizing privatization and cost efficiency, world-class standards,

employing more Emiratis, and enhancing accountability in a transparent regulatory environment.

## **Policy Drivers**

Decisions and long-term transport plans are being driven by a variety of opportunities, trends and challenges across a range of portfolios:

1. Abu Dhabi has ambitious plans to diversify its economy and attract three million tourist visitors per year by 2015.
2. Significant industrial infrastructure including ports and industrial zones are planned and under development in Abu Dhabi. Transport planning must respond and coordinate with these developments to ensure strategic infrastructure can be fully leveraged and internationally competitive.
3. Long-term planning in transport will conserve and improve the lifestyle of Abu Dhabi's people as the population grows. Safe and efficient roads and viable public transport are critical to achieving this.
4. Environmental considerations are central to transport planning in Abu Dhabi, which includes protecting the natural assets of the Emirate, minimizing emissions and exploring alternative energy options.
5. Strides in regional integration among GCC member states will place new demands on transportation infrastructure, while also creating opportunities for states.

with advanced infrastructure to strengthen their position as regional hubs for the fabrication and distribution of goods throughout the Gulf region.

## **Strategy**

In response to the vision and drivers outlined above, transport policy in Abu Dhabi consists of the following components:

### **Streamline the Department of Transport**

As it merges multiple authorities, the Department of Transport is undergoing a significant change process, to ensure its structures and functions are fully equipped to provide the efficient and effective administration required to achieve Abu Dhabi's goals.

The Department of Transport represents the first example of the modernized approach to public sector management that will be introduced across all portfolios over time. The new approach seeks to deliver public sector processes more efficiently and provide greater transparency and accountability for local and international stakeholders. In this way, the evolved structure of the Department of Transport is a useful demonstration of what is to come in a range of areas.

The new structure for the Department of Transport is based on five key policy divisions. These divisions will have responsibility for policy and strategic planning, regulation and relevant programs in the following areas:

- Aviation
- Maritime
- Public Transport
- Roads Safety
- Highways Management

The five divisions report to the Chairman of the Department of Transport. Supported by an Undersecretary, the Chairman oversees the regulation and supervision of transport conducted by these divisions.

To assist the Chairman in the areas of oversight and accountability two departmental functions have been created:

- An integrated planning and performance management function.
- An internal audit capability.

### **Integrate Planning and Performance Management**

Through its integrated planning function, the Department of Transport will:

- Consolidate and integrate overall transport policy, strategic plans, and targets (based on input from applicable Divisions).
- Develop Department of Transport annual plans.
- Coordinate strategic planning activities with the
- General Secretariat of the Executive Council.
- Provide divisions with policy development and planning guidelines and support.
- Conduct transport research, statistics and analysis.

Through its performance management framework, the Department of Transport will:

- Conduct overall transport performance analysis.
- Lead data collection and monitoring of key performance indicators (KPIs) from all divisions.
- Lead definition and development of KPIs and charters.
- Develop annual reports.
- Support divisions in target setting for all sectors' plans.

- Coordinate performance management activities with General Secretariat.

### **Create the Internal Audit Capacity**

Through its internal audit capability, the Department of Transport will:

- Review internal processes and ensure compliance with laws and regulations.
- Control budget utilization from legal and financial points of view.
- Submit recommendations for modification of policies and procedures.
- Coordinate the activities of External Auditors.
- Facilitate Risk Assessment activities across the Department.
- Review financial, administrative and operational effectiveness of the Department.

### **Expand Etihad Airlines and the Abu Dhabi International Airport**

A centrepiece of the transport policy, Etihad Airlines was launched in 2003 to play a key role in the Emirate's broader ambitions in tourism and business. The airline already flies to four continents directly from Abu Dhabi and estimates it will reach 70 destinations by 2010. Etihad expects to expand its annual passenger numbers from around one million in 2005 to approximately 20 million by 2018. The successful expansion of Etihad's capacity will be critical to achieving the Government's tourism objectives and the development of Abu Dhabi as an accessible, international destination.

In 2006 the Government created the Abu Dhabi Airports Company, with responsibility for all airports within the Emirate and expanding aviation infrastructure to support Abu Dhabi's economic development. The company is overseeing significant research into local aviation infrastructure needs and developing and implementing short, medium and long term plans for necessary development.

In May 2005 plans were announced for a new international airport in Abu Dhabi. The approximately \$7bn airport expansion programme will provide capacity for 20m passengers per year in its first phase, which is due to be completed between 2010 and 2012. When the total project is completed, the airport will have capacity for 50m passengers per year. In addition, the new airport is expected to service up to 2m tonnes of freight and cargo each year.

A new 4,100 metre runway will be completed by the end of 2007.

The new Abu Dhabi International Airport must be conveniently linked to the city and emerging tourist areas and a range of proposals are being considered to provide those links.

### **Create World-Class, Fully Integrated Sea Ports**

In 2005 a Memorandum of Understanding was signed between Abu Dhabi Seaports Authority (ADSA) and Dubai Ports World (DP World) to establish a strategy for the development and management of the Mina Zayed Port. Later that year, the two parties signed a Management Services Agreement.

In March 2006 the Abu Dhabi Ports Company was established by Law No. (6) to develop, own and manage all ports in the Emirate. Also in 2006, Abu Dhabi

Terminals, a new port operating company, was created to operate Mina Zayed and coordinate the Management Services Agreement with DP World.

A decision has also been made to transfer all of Mina Zayed's port activities to a new facility-the Khalifa Port and Industrial Zone-strategically located at Al Taweelah. The deep-water port will provide 33m tonnes of dedicated bulk and general cargo capacity in the first phase. By the completion of phase two, the port will have a capacity of 80m tonnes and handle all of Mina Zayed's current operations.

The new port will be complemented by a 100 square kilometre industrial zone. The zone will cater for base metals, heavy industry, chemicals, trade/logistics, building materials, medium and light industry. The industrial zone also will house a new aluminium smelter with a capacity of 1.2m tonnes per year. In this way, the Khalifa Port and Industrial Zone demonstrates the strategic coordination of transport and industrial facilities in the one world-class location. In its strategic design and implementation, it is an approach that transport and infrastructure planners will seek to replicate.

### **Include Public Transport**

Mass transport options such as rail and a broader public transport plan will be developed as soon as a clear master plan is developed for the city and the broader Emirate of Abu Dhabi. Transport decisions will be integrated in these broader planning exercises to ensure services and infrastructure are coordinated and strategically tailored to the current and future needs of the Emirate.

### **Improve Taxis and Buses**

The Department of Transport is currently implementing a strategy to improve the overall quality of the Abu Dhabi taxi fleet to ensure residents and visitors can expect a particular level of service. The impacts of this strategy on demand for less expensive transport options such as buses will also be considered to ensure any changes in consumption patterns can be planned for and managed.

Law No. (19) for 2006 was passed on 19th of September 2006. It states that taxi services in the Emirate of Abu Dhabi will be managed, regulated and monitored by the Centre for Regulation of Transport by Hire Cars, an independent body that reports directly to the Chairman of the Abu Dhabi Department of Transport.

The Centre is overseeing the transition to a new taxi scheme based on the franchising of taxi service provision to a number of locally qualified companies. This new system will replace the current practice of individuals owning and operating taxis. Currently around 7000 Emirati National taxi owners employ expatriate drivers to operate on their behalf on a commission salary basis.

A process is currently underway with the aim of selecting seven franchisees that will manage and operate 1200 taxis each. The selected franchisees are expected to be operational before the end of 2007.

The National Bank of Abu Dhabi has been appointed to manage, invest and administer what is called the taxi owners compensation fund. The fund will collect a monthly levy from operators to distribute among original, individual taxi owners.

A third party certification agent will be appointed in the second quarter of 2007 to conduct driver testing and a training program for taxi drivers.

## Coordination

Successful implementation of the Abu Dhabi transport strategy will rely on effective coordination between the Department of Transport and a diverse collection of public and private entities.

Examples of separate coordinating efforts are listed below. In addition, the Department of Transport could create special fora or conferences that include real estate, property, tourism and industrial developers, to communicate the Emirate's development plans and seek feedback. This will help ensure that new processes are fully understood, evaluated and integrated into long-term transport planning decisions. Other utility providers such as ADWEA, educational institutions and the Abu Dhabi Police will also be involved in this coordinated planning exercise.

**Town planners:** Transport links sites and locations and is not an end in itself. As such, the Department of Transport must work closely with those developing master plans throughout the Emirate of Abu Dhabi to ensure transport planning decisions are coordinated.

**Private property developers:** The Department of Transport must have open channels of communication with private property developers in the Emirate to ensure that population projections are accurate, plans are sustainable, and transport infrastructure can be developed appropriately. The long-term impacts of poor planning and communication could be significant.

**Industrial infrastructure planners:** Similarly, the Department of Transport must have open channels of communication and coordinate its plans with public and private planners and developers of significant industrial infrastructure, such as ZonesCorp. These industrial centres will rely on effective and efficient transport to handle expected demand and transport decisions must be based on accurate data and estimated demand.

**Department of Economy and Planning and the Abu Dhabi Council for Economic Development:** Input from these bodies will maximize the ability of the Department of Transport to identify infrastructure projects that will enhance Abu Dhabi's attractiveness as a destination for local and Foreign Direct Investment.

**Abu Dhabi Tourism Authority (ADTA) and private tourism entities:** Development strategies for the tourist sector-including projected numbers, the location of attractions and plans to develop property in Abu Dhabi-must be shared with key decision-makers in the transport sector, to ensure proper planning for future needs. For example, key components of the ADTA strategy include improving bus networks to reach tourist destinations more regularly, and new regulations to raise overall standards in the taxi sector. Private accommodation developers must also share their plans with the Department of Transport to ensure decisions are based on accurate projections of the size, nature and location of transport demand.

**Abu Dhabi Authority for Culture and Heritage:** This new authority will be upgrading existing and developing new cultural attractions, such as historical sites and museums. These are likely to be significant tourist attractions and the Department of Transport will work closely with the Authority to ensure it is aware of their location and expected demand to ensure appropriate infrastructure is in place to make them easily accessible for visitors and residents.

The Department of Municipal Affairs: The Department maintains control over some transport decisions, especially roads. The allocation of responsibilities between the Department of Municipal Affairs and the Department of Transport must be clearly understood and decisions by each should be coordinated. This will minimize duplication and avoid gaps in the delivery of transport infrastructure and services across the Emirate of Abu Dhabi.

Education: As stated, plans to establish educational institutions such as schools, universities and Higher Colleges of Technology must be based on accurate demographic projections and also shared with transport decision-makers to ensure students can conveniently travel to and from these locations.

## **Environment, Health and Safety**

### **Preserving Wildlife, Protecting People**

#### **Objectives**

One of the most important legacies of Sheikh Zayed bin Sultan Al Nahyan was the preservation of the land and marine environment for future generations of the Emirates. In a relatively small area, Abu Dhabi boasts a diverse environment, home to globally important wildlife such as the Arabian gazelle, migrating birds, and countless marine fish and animals. The Environment Agency of Abu Dhabi protects the rich wildlife and ecosystem, ensuring that the Emirate's social and economic growth is managed in a sustainable way. Specifically, this means supporting long-term environmental conservation and protecting human health and safety for all inhabitants.

The Agency sets, monitors and enforces standards and regulations relating to air quality, marine management, water use and recycling, land contamination and restoration, noise abatement, waste containment, biodiversity and conservation, occupational health and safety, hazardous materials and environmental auditing. These monitoring and enforcement procedures are crucial to the vision of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates and Ruler of Abu Dhabi, to establish Abu Dhabi as a global city.

The Environment Agency will achieve excellence in the protection of environment, health and safety through partnerships between Government entities and the private sector, so that activities within the Emirate of Abu Dhabi are undertaken in a responsible, safe and sustainable manner. Ensuring a clean environment is critical to sustainable economic growth in Abu Dhabi.

A practical benefit of this approach is to reduce risk and liability for the Emirate and clarify responsibilities for government and the private sector.

The UAE has had a dedicated body to address environmental concerns since 1975, and Abu Dhabi's emirate-level agency-first established in 1993-has worked closely with the Federal Environment Agency and continues to do so. As part of the government restructuring taking place in Abu Dhabi, the local agency will evolve into the Department of Environment and Wildlife, taking on additional responsibilities not outlined here, including forestry management.

## **Contribution to Abu Dhabi Vision**

While seeking to provide his people with the benefits of the modern world, His Highness the late Sheikh Zayed never lost sight of the vital need to protect the natural world. Under the leadership of His Highness Sheikh Khalifa bin Zayed Al Nahyan, the Executive Council is committed to protecting Arabian wildlife and to promoting human health and safety-while applying the highest international standards, building an empowered private sector, and creating a transparent regulatory environment.

## **Policy Drivers**

While the Environment Agency has been very effective in a number of areas, its current mandate provides new opportunities. Furthermore, its new role in health and safety means the Agency must apply its professionalism and effectiveness to a new function.

### **1. Clarify regulation and enforcement**

The agency is developing standards, roles and responsibilities throughout its environment, safety and health functions, to ensure protection of people and the environment and enable the private sector to fulfil its responsibilities. Among key regulatory priorities are the prevention of water pollution, air pollution and the responsible management of agrochemical use.

### **2. Collect data**

Across all functions, the agency is improving its ability to collect data reliably and consistently. Even where work is more developed, new data is required. For example, elements of Abu Dhabi's ecosystems are known superficially and qualitatively (e.g., species, distribution) but further data will be captured to make sound decisions on management in the future.

### **3. Ensure sustainable growth**

Industrial and agricultural growth and the corresponding increase in population are placing more pressure on the environment than ever before. Power and desalination projects are underway. Hospitals are expanding, creating more medical and hazardous waste. The number of cars in Abu Dhabi has increased dramatically over the last five years. Increased greening of the desert and promotion of agriculture has intensified the use of pesticides. The agency is well positioned to ensure that modernization goes hand-in-hand with a healthy population and environment.

### **4. Empower Government entities to manage**

environment, safety and health across all portfoliosAs regulations are developed, the Environment Agency will support other Departments, Agencies and Authorities to form their own safety and health offices. The Agency also will be a resource for private sector monitoring, reporting, training and accreditation which will expand environment, health and safety capabilities across the Emirate.

### **5. Position Abu Dhabi as a leader in green technologies**

Abu Dhabi has been blessed with enormous oil and gas resources, but also renewable energy resources such as wind and sun. The world's global energy needs will be hydrocarbon-based far into the future, but more countries will seek to diversify their energy mix. With the recent launch of the Masdar alternative energy initiative, the Emirate is poised to respond to this need and diversify the UAE's own energy and technology offerings, becoming not only a world leader in oil but energy more broadly.

## Strategy

The agency has developed a comprehensive set of action plans in consultation with an extensive group of stakeholders from the Abu Dhabi Government, UAE Government, and the private sector. It has also included input from international organizations. When developing the safety and health framework, the Agency has reached out to a broader set of groups and individuals, including non governmental organizations, those involved in public health and safety, and representatives from key industrial sectors.

### **a) Create the environment, health and safety legal framework**

The agency is developing a regulatory framework through a set of decrees and policies. Sector focuses include:

- Building and construction
- Transportation
- Health
- Energy
- Tourism sector
- Oil and Gas
- Industry

### **b) Form Emirate Environment Protection Policies**

Emirate environment protection policies will define standards, monitoring and enforcement in the following key areas:

**Air:** Outdoor air quality standards, including particulate; indoor air quality standards for workplaces (includes factories, commercial buildings, schools, hospitals).

- New initiatives are underway to explore and more fully utilise cleaner fuels such as "green diesel" and Clean Natural Gas (CNG).

**Water:** Protection of marine and freshwater environments; discharge standards; water reuse, recycling and conservation; irrigation; groundwater resource protection.

- One of the most immediate needs is to develop monitoring for baseline and ongoing assessment, given that data on water sources and water use are not readily available in transparent and consistent ways.

**Land:** Contamination management and cleanup; contaminated land auditing; discharge standards; waste disposal; soil conservation.

**Noise:** Ambient and occupational standards; limitations for equipment, plant and vehicles; entertainment venues.

**Wastes:** Domestic and municipal wastes; solid inert wastes; hazardous industrial wastes; biomedical wastes; waste recovery, recycling and reuse; waste management hierarchy; waste containment (packaging), labelling, storage, transport, treatment and disposal.

Biodiversity and conservation: Biodiversity protection (flora and fauna), and conservation of special areas and habitats both terrestrial and aquatic.

- The agency is shifting from a species approach (illustrated by past programs such as preserving sea turtles and dugong) to a system-wide approach that enables the agency to identify, address and mitigate the root causes of wildlife depletion.
- This area includes in-depth work with the fishing industry to forecast sustainable harvest levels and monitor over-harvested or threatened species. It also includes research into human impacts, including effects of fishing on the marine environment, introduction of exotic species, contaminants and other challenges.

Occupational and environmental health and safety: Employee/employer responsibilities, communication and consultation requirements; information requirements; management of workplace health and safety; management of public health and safety; risk assessment.

Hazardous materials: Hazardous substances and dangerous goods management and information in accordance with national standards and global harmonization initiatives (e.g., UNEP's International Program for Chemical Safety).

Auditing and enforcement: Advice on what to expect in terms of enforcement of regulatory requirements; powers of authorized officers of Environment Agency Abu Dhabi; provision and collection of evidence; service of notices; mitigating circumstances and defence provisions; demonstration of compliance by industrial facility auditing; nature of penalties; incentives for compliance.

**c) Create a society with increased environmental awareness and action**

In the words of His Highness the Late Sheikh Zayed, "Conservation of the environment is not and must not be seen as a matter only for Government or officials. It is something that concerns us all." In line with this view, the Agency works to educate and motivate a wide range of groups, from other government agencies to higher education institutions, to media to diving clubs and religious groups. Public awareness efforts include:

- Producing videos and books that personalize the wildlife experience for children and adults.
- Conducting campaigns for fishermen in multiple languages such as Arabic, English, Urdu, and Malayalam.
- Managing the Al Ain Zoo and planning for an on-site education centre.
- Offering experts to speak to government and private sector groups and the media.
- Conducting targeted campaigns like the 'Green Hoteliers'.

#### **d) Build on Recent Achievements in Sustainability**

The Abu Dhabi Government has developed a comprehensive timeline of deliverables in all key environmental categories. The evidence of the agency's long-term success is in the cleaner air, land and water that Emirati residents enjoy-a result of tangible outcomes such as:

- Treated wastewater used for irrigation of over 30 million palm trees as well as for agriculture and landscaping.
- Successful introduction of a new regulation requiring every real estate project within Abu Dhabi to conduct an environmental impact assessment.
- Sludge from municipal wastewater treatment mixed with solid waste and used a fertilizer.

In addition, the following elements will be implemented to achieve the Government's immediate goals in environment, health and safety:

- The agency will launch a comprehensive environment, safety and health (EHS) system, with a test framework, manual, and other elements of implementation, in December 2007.
- In 2007, the agency will develop individual sector EHS plans.

#### **e) Support the Masdar initiative**

In April 2006, the Government of Abu Dhabi established the Masdar Initiative, a landmark alternative and sustainable energy program designed to underpin Abu Dhabi's long term position as a reliable global energy provider.

Masdar is therefore a strategic initiative with four key objectives:

1. Contribute to the economic diversification of Abu Dhabi.
2. Maintain, and later expand, Abu Dhabi's position in evolving global energy markets.
3. Position Abu Dhabi as a developer of technology, rather than an importer.
4. Make a meaningful contribution towards sustainable human development.

An additional component of the initiative is the Masdar Clean Tech Fund L.P., a \$250 million investment vehicle designed to generate returns on investments in clean tech and sustainable energy companies.

At its most simple level, Masdar enables Abu Dhabi to apply its hydrocarbon resources and expertise in global energy markets to the technologies of the future. The initiative seeks to establish Abu Dhabi as a world-class research and development hub for new energy technologies, while maintaining the Emirate's strong position in the global energy sector.

The Government of Abu Dhabi will continue to support the Masdar initiative and work with the private sector to expand the role of the Emirate as a provider of energy to the world.

The initial collaborative private sector partners working towards these outcomes with Abu Dhabi include BP, Shell, Occidental Petroleum, TOTAL Exploration and Production, GE, JODCO, MITSUI, Mitsubishi, and Rolls Royce.

## **Coordination**

The Environment Agency has historically worked with a range of government agencies to define and develop regulation and standards, as well as to enforce them. Key Abu Dhabi and federal entities are listed below:

- Abu Dhabi Water and Electricity Authority (ADWEA)
- Ministry of Interior
- Ministry of Environment and Water
- Federal Environment Agency
- Department of Transport
- Abu Dhabi National Oil Company
- Health Authority - Abu Dhabi
- Abu Dhabi Food Control Authority
- Abu Dhabi Tourism Authority

# **Municipal Affairs**

## **Empowering the Regions and Coordinating Growth**

### **Objectives**

Under the leadership of His Highness Sheikh Khalifa Bin Zayed al Nahyan, President of the United Arab Emirates and Ruler of Abu Dhabi, the Emirate is embarking on a necessary and ambitious restructuring of its Government and functions.

The Department of Municipal Affairs, which was established in May 2007 to replace the Department of Municipalities and Agriculture, is the focal point of all municipal planning activities, in addition to overseeing public works projects in the Emirate.

The Department of Municipal Affairs will be supported by three Regional Municipal Councils and Municipal Administrations. The Department of Municipal Affairs will be the regulator and supervisor of services provided by an empowered private sector, instead of the dominant provider of services.

The objective of the new Department of Municipal Affairs is to make the management of municipal services more efficient and to prepare for the needs of the population in the future.

Some services of the Department have already been outsourced to the private sector, and others will be distributed to other arms of government. In addition, the agricultural responsibilities of the former Department of Municipalities and Agriculture have been transferred to the Abu Dhabi Food Control Authority. The process of reform will bring new efficiencies and customer improvements for all Nationals and residents in the Emirate of Abu Dhabi, and represents a new era in municipal service provision.

### **Contribution to Abu Dhabi Vision**

The Abu Dhabi Executive Council is the steward of efficient, inclusive and accountable government. The Department of Municipal Affairs and Agriculture contributes directly to the work of the Executive Council by:

- Planning and managing infrastructure assets.
- Creating the ability for a large empowered private sector to play a role in the delivery of municipal services.
- Fostering an optimized and transparent regulatory environment that enhances Abu Dhabi's ability to attract local and foreign direct investment.
- Contributing to the domestic security of infrastructure and assets.
- Utilizing strong and diverse international relationships to provide for and improve municipal services within the Emirate.
- Ensuring Emirate resource optimization.
- Contributing to the maintenance of Abu Dhabi's heritage and culture.

## **Policy Drivers**

The key driver of the reform of municipality management is the need to achieve efficiencies in the management of the Emirate's towns and cities. It is the intention of the new Department of Municipal Affairs to achieve these efficiencies by outsourcing virtually all the services provided by the current municipal structure.

However, it is important to recognize that outsourcing does not necessarily represent privatization because the Government will maintain its own accountability for the equitable delivery of high-quality services, even if it does not physically deliver the services itself.

The new workforce for the Department of Municipal Affairs will also be one in which Nationals of the Emirate play a stronger and more significant role. At present, about 20 percent of the Department's workforce is National. In five years, the Department of Municipal affairs will seek to have a workforce that comprises 80 percent Nationals.

The Emirate is ultimately seeking to reduce the cost of service delivery and enhance the quality of those services. The outsourcing approach being embraced by the Department of Municipal Affairs seeks to achieve saving targets of 35 percent to 40 percent when fully implemented. Assessment indicators will be established to monitor these cost savings and the ongoing standard of services, with the private sector operating within a regulated and monitored environment.

Governments in other countries view change processes within five or ten year frameworks. Yet within the Department of Municipal Affairs, a delay of five or ten years cannot be afforded due to the rapid social and economic growth Abu Dhabi is experiencing. As such, the change process will be implemented rapidly, and the Department will engage the resources it needs to achieve this outcome on a much faster timeframe.

## **Strategy**

The strategy to achieve the desired efficiencies and improvements in the delivery of municipal services will be achieved through:

- Establishment of a new Department of Municipal Affairs.
- Creation of three Regional Municipal Councils and Municipal Administrations, for the Western Region,
  - Al Ain and Abu Dhabi.
- A regulatory framework of laws and by-laws to manage the municipal service environment.
- Redistribution of some service functions to other Departments and Authorities better suited to their delivery.
- Joint ventures with the private sector.
- A procurement and contract management system designed to successfully manage private-sector engagement.

- A new focus on retention of Nationals within the Department of Municipal Affairs.

The new Department of Municipal Affairs will not retain a significant service delivery function. It will establish laws and by laws for the delivery of municipal services and initiate procurement and contract management of private-sector providers.

Private partners to deliver services will be assessed and selected under a newly established set of criteria which will consider the financial viabilities of the private sector partner, their recent history of experience in service provision, and their proposed approach to staffing, which will favour the employment of Nationals.

The implementation of this strategic approach is underway. For example:

- The Department of Municipal Affairs was established in May 2007.
- Solid waste collection and disposal will also be operated exclusively by the private sector - privatization having been completed in 2006.
- Privatisation has also occurred in relation to sewerage. The management of sewerage has been transferred to the Abu Dhabi Water and Electricity Authority, which is better suited to the evolution of the task in years to come.
- A process for the outsourcing of public garden maintenance, already underway, will be completed in the second half of 2007.

### **The Western Region Model of Development**

In August 2006, the management system of the Western Region of Abu Dhabi was restructured to create a Municipal Council and an Advisory Board for the Western Regional Development Council (WRDC). This approach in the Western Region provides a model to be replicated across all three Municipalities in the Emirate of Abu Dhabi.

The Western Region Municipal Council consists of 16 members under the supervision of the Chairman of the Department of Municipal Affairs. Members are appointed from various cities in the Western Region, contributing to a greater degree of public participation in the decision-making process.

The Advisory Board for the Western Region Development Council consists of five members representing the business and investment sectors and seven members representing government entities, including the General Manager of the Western Region Development Council.

Key responsibilities of the Advisory Board are to:

- Promote the Western Region as an exemplary model for economic and social development.
- Handle employment obstacles.
- Improve the skills of local human resources.
- Set the necessary incentives to attract qualified expertise to the region.

- Further promote investment and diversification by establishing new sectors and industries in the Western Region.
- Represent the public and private sectors, recognizing the special roles each must play in regional development.

Together, the Municipal Council and the Advisory Board will effectively promote the achievement of successful and sustainable development activities in the Western Region-raising living standards, providing career development opportunities, enhancing local expertise and providing advanced infrastructure to the Emirate.

The Western Region development strategy adopted by the Emirate of Abu Dhabi focuses on four key components:

1. Residents
2. Companies
3. Infrastructure
4. Promotion of the region's resources

The integrated Government Services Centre named 'Tamm' which provides a 'one-stop shop' approach to public sector interactions was the first step in the development strategy, established in September 2005.

#### *Western Region Development Council*

The Western Region Development Council was enacted by Law No. (12) of 2006 issued by His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE and Ruler of Abu Dhabi in May 2006. According to the law, the Western Region Development Council shall enjoy financial and administrative autonomy. Its key objectives are as follows:

- Review and evaluate the current investment, economic and legal environment in the region and propose programs, projects and legislation to drive development.
- Propose to the General Secretariat of the Executive Council solutions supporting and mobilizing business and investment in the region.
- Activate the role of the private sector in economic projects, in coordination with the public sector.
- Consult relevant investors and business representatives to prepare studies and formulate recommendations for the General Secretariat of the Executive Council.
- Support small and medium enterprises and investors to enhance employment opportunities for local residents.
- Coordinate with relevant Government entities to facilitate appropriate licensing procedures for investors and business representatives.

- Propose initiatives to develop infrastructure in the region, in collaboration with relevant public entities.
- Propose training opportunities to enhance local human resources to meet the requirements of job vacancies.
- Advise on projects in the Western Region proposed by other Government entities.

Initiatives in the Western Region are useful as they demonstrate a proactive, modernized approach to development and municipal administration that will be reflected as appropriate across the three regions of the Emirate of Abu Dhabi.

## **Coordination**

The reforms within municipal management are driven by the central reform approach of the Executive Council. Coordination with other agencies better able to perform some services of the Municipality is underway, and the redistribution of municipal services to other Departments and Authorities will be achieved before the end of 2007.

The implementation of the new Department of Municipal Affairs and the establishment of the three Regional Municipal Councils and Municipal Administrations will contribute to the overall success of the vision and mission of the Emirate to better engage the private sector in the provision of government services.

The Municipalities must effectively coordinate with a range of public and private entities to ensure services are delivered in an integrated way. For example:

- Municipalities must coordinate with the Abu Dhabi Water and Electricity Authority for water, electricity and sewerage services. This is particularly necessary, as the Municipalities still maintain responsibility for services such as pest control, which heavily rely on effective sewerage systems.
- Real estate and property developments will have a significant impact on the demands for municipal services, and the locations those services are required. The Municipalities must ensure they are fully informed by public master planners and private real estate developers to enable integrated planning to take place in the provision of infrastructure and municipal services.
- In their regulatory role, municipalities can have a significant impact upon the business environment and the perceived attractiveness and security of investment in the Emirate of Abu Dhabi. For this reason, it is imperative that municipalities coordinate with the Department of Economy and Planning and the Abu Dhabi Council for Economic Development to ensure that regulatory processes and performance are appropriately geared toward the objective of sustained economic growth and diversification.
- Similarly, tourism plans and accommodation developments will have a significant impact on the demands for municipal services, and the locations those services are required. The Municipalities must ensure they are fully informed by the Abu Dhabi Tourism Authority, public and private tourist developers and other relevant entities to enable integrated planning for infrastructure and municipal services.

- While the Department of Transport has ultimate responsibility for transport planning in the Emirate, the Municipalities maintain control over some transport decisions, particularly in terms of roads. As such ongoing coordination will be a feature of the working partnership that will exist between the Municipalities and the Department of Transport. This will minimize duplication, but also avoid gaps in the delivery of transport infrastructure and services across the Emirate of Abu Dhabi.

# **Police and Emergency Services**

## **Maintaining a Safe and Secure Society**

### **Objectives**

Abu Dhabi and the United Arab Emirates enjoy one of the safest and most secure citizen environments anywhere in the world. Under the guidance of His Highness the late Sheikh Zayed, and His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates and Ruler of Abu Dhabi, the Emirate has enjoyed long periods of low crime, social diversity and freedom from civil strife.

The General Directorate of the Abu Dhabi Police works in partnership with each of the Government Departments of Abu Dhabi to ensure a safe and stable society, to keep crime low, and to contribute to the delivery of justice in a way that secures and maintains public confidence.

Specifically, the Directorate has responsibility for police services, emergency services and correctional facility management. The Directorate is an arm of the Ministry of the Interior of the United Arab Emirates.

Abu Dhabi also enjoys strong internal security, and has thankfully been free of acts of terrorism that have tragically beset other nations around the world. Accordingly, police, emergency services, and correctional facilities reflect the specific needs of the local community, which are distinctly different to other nations around the world where crime rates are generally higher in comparison.

The overarching vision of the General Directorate of Abu Dhabi Police is to become 'the most operationally effective police force possible' within five years.

### **Contribution to Abu Dhabi Vision**

The Abu Dhabi Executive Council is the steward of efficient, inclusive, and accountable government. Its mission is to develop and oversee economic and social policies for the strategic benefit of Abu Dhabi. The vision for Abu Dhabi is a secure society and a dynamic, open economy based on the following pillars:

- Premium education, healthcare and infrastructure assets.
- A large empowered private sector.
- The creation of a sustainable knowledge based economy.
- An optimal transparent regulatory environment.
- Complete international and domestic security.
- A continuation of strong and diverse international relationships.
- Emirate resource optimization.
- The maintenance of Abu Dhabi's values, culture and heritage.
- A significant and ongoing contribution to the federation of the United Arab Emirates.

The Abu Dhabi Police, as an entity of the Ministry of Interior of the United Arab Emirates, has a pivotal role in maintaining the standard of security that has made Abu Dhabi one of the world's safest modern cities. It also has a mandate to ensure for the continuing safety of the Emirate as it continues to grow as a consequence of planned economic expansion.

Importantly, the Emirate's leadership also recognises that police and security services are only a small part of achieving lasting security in the UAE. Historically, security in the UAE has largely been the result of a reliable system of Government, material wealth, a content multicultural population, and diverse international relationships based on diplomacy and business interests. In this way, security is achieved through social, economic and environmental factors and not by the police and security forces alone.

As such, the General Directorate of Abu Dhabi Police has a significant interest in the broader social and economic vision for the Emirate of Abu Dhabi and ensuring it is achieved in a peaceful, inclusive and sustainable way.

## **Policy Drivers**

The General Directorate of Abu Dhabi Police is regarded as a successful force. Their achievements in providing for a secure and safe environment during times of rapid community change should not be underestimated.

Four societal challenges, common to many countries in the Gulf region, are driving the evolution of future policing needs.

### **1) Managing the needs of a growing community**

The rapid economic growth of the Emirate of Abu Dhabi is requiring the force to provide policing, emergency, and correctional services to increasingly diverse cultural and ethnic communities. Demand for policing and emergency services will be high in coming years, as the population of the Emirate continues to grow, and policing services will, in turn, need to evolve to meet these changing needs. Specifically, the growing population and changing cultural face of the Abu Dhabi population will require people of different cultural backgrounds to live in harmony in their new host country. It will also require policing services to be provided to these communities in an efficient and culturally appropriate manner with due regard to the promotion of human rights.

### **2) Responding to changes in international security**

The Emirate of Abu Dhabi has enjoyed, and continues to benefit from, longstanding stability. However, Abu Dhabi is not complacent and is taking measures to prevent and prepare for the unlikely possibility of an adverse incident occurring. The United Arab Emirates Ministry of Interior, of which the General Directorate of Abu Dhabi Police is a component, manages security across the Emirate. The Abu Dhabi Directorate coordinates its efforts as part of a national framework, with a commitment to disaster planning and intelligence gathering to prepare for and prevent large-scale criminal incidents.

### **3) Providing for improved road safety**

In response to a number of deaths on the Emirate's roads, Nationals and residents of Abu Dhabi are keen to see improvements in road safety. The General Directorate of Abu Dhabi Police has a central role to play in these endeavours, through policing, policy advice and public education.

### **4) Attracting a larger professional force**

In previous years, surveys of staff of the General Directorate have revealed significant numbers with inadequate literacy and communication skills. The Directorate has experienced shortages of police recruits, particularly among Emirati Nationals and faces challenges in attracting sufficient personnel to provide for the Emirate's policing needs.

In 2004, prior to the restructure of government and in response to these four community priorities, the Abu Dhabi Police Directorate commenced modernization initiatives to improve police operations, emergency services, and correctional facilities. The modernization was undertaken to change the police services to meet the evolving needs of the rapidly expanding economy and community.

The prime initiatives were:

- Establishment of a team of senior international advisory experts.
- Development of a 'Five-Year Strategic Development Plan' comprising a vision, values, and a seven-point plan emphasizing strategic objectives.
- A reorganized structure with new divisions, and specific job descriptions for all staff.
- Training to improve policing capabilities.
- Upgrading police stations and facilities.
- Introducing additional e-services.

These initiatives will continue to drive policy and improvements to the delivery of police services and security in Abu Dhabi. In addition, His Highness the President has asked the Directorate to review the future ability of the Directorate to manage the changes occurring within the Emirate. The review will consider the effectiveness and efficiency of policing services, the preparedness of the Emirate to deal with a large-scale emergency or unexpected event, and also consider the positioning of the Directorate within the Ministry of the Interior to establish if it might be better served by becoming a government department of Abu Dhabi.

The review will form part of the wider review of government in Abu Dhabi, which is being conducted to maintain and improve the quality of life within the Emirate.

## **Strategy**

### **The Seven Point Plan**

The General Directorate of Abu Dhabi Police has in place a seven-point plan to fulfil its purpose to become an operationally effective police force in one of the world's safest countries. The plan requires the police, emergency and correctional services to:

1. Focus operational effort on maintaining stability, reducing crime, and promoting reassurance and safety within the Abu Dhabi community. This includes the promotion of community confidence and making Abu Dhabi's roads safer for all.
2. Build trust and confidence by consultation and communication. This recognises that for communities to have confidence in the rule of law the Police must communicate its intentions, actions and successes effectively-internally and externally. This also includes setting goals and expectations for employees and the Directorate as a whole.
3. Improve the quality of police, emergency, and correctional services. This requires a greater focus on outcomes and continuous improvement in service delivery by the Directorate. Implementing this component relies on rigorous performance review and quality audit processes to identify areas for improvement. Specifically, the Directorate is seeking to achieve ISO 9001:2000 certification for its performance management systems.
4. Achieve best value in the delivery of services.  
The Directorate relies on public funds, and is seeking to maximize its efficiency and use resources more effectively to achieve a higher degree of public sector accountability in the administration of police and security services.
5. Develop the talents of members of the police, emergency, and correctional services. Specifically, this strategy means identifying potential leaders in the Directorate and provide them with the necessary training, support and mentoring to reach their full potential.
6. Promote corporate and individual honesty, ethics and integrity. This component requires the Directorate to set out its standards of conduct, and establish the means to deal with breaches effectively. An honest, ethical organization is identified as bedrock on which the Directorate must continue to build its organizational future.
7. Provide equipment, buildings and technology, which promote the delivery of effective and efficient services. The Directorate's buildings, technology, uniform, vehicles and other equipment must fulfil the requirements of a leading 21st century police force.

To achieve these seven strategic imperatives, the General Directorate has appointed a senior Departmental officer with responsibility for overseeing operational plans. Annual performance plans are required to be prepared to assess achievement of each of the seven components, and future year funding decisions are linked to successful implementation of each of the strategies.

Each of the seven points represents a strategic aim of the Directorate which will be of the same five-year duration as an overarching Strategic Development Plan. These aims will be achieved through the establishment of seven corresponding organizational Area Strategies. In each successive financial year there will be a

specific Force Development Plan which will identify how, through the organizational Area Strategies, the Directorate is to progress towards its five-year vision of becoming 'the most operationally effective police force possible'.

### **Outsourcing**

The General Directorate of Abu Dhabi Police is also moving to adopt the principles of the whole of government restructure to reduce the role of government as a service provider, increase the use of private-sector service providers, and focus government efforts on regulation. Specific initiatives illustrating the Directorate's commitment to the whole of government restructure can be seen through:

- The outsourcing of fire fighting services to an international private sector provider.
- The involvement of private-sector police training services drawn from the experiences of police forces in the United Kingdom and Canada.
- The introduction of a licensing system for private security providers to conduct security services for social events, weddings or money transfers which had been previously been provided for by Emirate police.
- The introduction of private sector providers of driver learning and instruction services, which had previously been provided for by the Emirate's police.

### **National Security Council**

Federal Law No (17) for 2006, issued on June 11th, 2006, established a Supreme National Security Council. The Supreme National Security Council is chaired by His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates and Ruler of Abu Dhabi. The Council has responsibility for providing ongoing planning and coordination of different government departments across the United Arab Emirates to ensure continued safety for the Nation in a coordinated way.

### **Coordination**

The General Directorate of Abu Dhabi Police, as the provider of police services, emergency services, and correctional facility management, serves the needs of the entire community of the Emirate. Responding to these needs requires coordination with most if not all government departments, and the General Directorate has identified a need for closer collaboration with a range of government bodies.

Specifically, the General Directorate has immediate interaction with its supervising Department, the UAE Ministry for the Interior. It is through the Ministry for the Interior that the General Directorate interacts with intelligence and armed forces for security and disaster planning. It is also through the Ministry that the Directorate will participate in the soon to be formed National Security Council.

Within the Emirate, the Directorate will work closely with the:

- Department of Transport in promoting road safety and improving driver behaviour.
- Health Authority in planning for a reduction in the amount of road deaths.

- Abu Dhabi Education Council in promoting Police and Emergency Services as attractive employment options for school and university leavers, and using education to create greater respect for public safety and community harmony.
- Department of Municipal Affairs in planning for the location of police and emergency services in the Emirate.
- Abu Dhabi Tourism Authority in providing police and emergency services to meet the needs of the anticipated increased tourist market.
- Judiciary to improve public awareness and respect for laws.