Chapter Two

02

THE STATE OF NORTHERN AFRICAN CITIES

Cairo, Egypt.
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2.1
The Social Geography of Urbanization

For the purposes of this report, Northern Africa includes seven countries: Algeria, Egypt, the Libyan Arab Jamahiriya, Morocco, Sudan, Tunisia and Western Sahara. The population of the subregion was an estimated 212.9 million in 2010. Most urban settlements are concentrated along the Nile River Valley and the north-western Mediterranean coast (see Map 2.2). As many as 40 per cent of the subregion's urban dwellers live in the Nile Valley and Delta region and 49 per cent live in the coastal areas.[1] More than one third (39.67 per cent) of the subregion's population, or 84.5 million, lives in Egypt. Between the year 2000 and 2005, the urban population in the region grew an average 2.4 per cent every year, and this rate is projected to remain steady through 2010.[2]

With the exception of Egypt and Sudan, the majority of the Northern African population now lives in urban areas. The high rates of rural-urban migration that prevailed in the 1980s and 1990s have largely abated in the last decade, with the exception of Sudan whose urban population is still increasing at over 4.3 per cent on an annual average basis as urbanisation seems to be 'catching up' after decades of civil strife. During 2005-2010, urban demographic growth was much slower in other Northern African countries: 1.56 per cent in Tunisia, 1.99 per cent in Egypt, 2.27 per cent in Morocco, 2.23 per cent in Libya and 2.48 per cent in Algeria.[3]

Currently, the proportion of the national population living in cities is 66.50 per cent in Algeria, 43.40 per cent in Egypt, 77.89 per cent in Libya, 58.24 per cent in Morocco, 40.10 per cent in Sudan, 67.28 per cent in Tunisia and 81.83 per cent in Western Sahara. By 2030, the region-wide proportion of the population living in cities is expected to increase to 60.53 per cent (see Table 2.1), while urbanisation rates are projected to grow further in all countries, reaching 82.88 per cent in Libya, 76.23 per cent in Algeria, 75.17 per cent in Tunisia and 69.18 per cent in Morocco. By 2030, Sudan's 54.54 per cent urbanisation rate will have overtaken Egypt's which by then will stand at 50.92 per cent (see Table 2.2).

All Northern African countries have progressed in economic terms between 2005 and 2008, with the highest increases in gross national income (GNI) per head recorded in Libya (97 per cent) and Sudan (92 per cent) and the smallest in Tunisia (15 per cent) and Morocco (29 per cent). While the economies of Algeria, Libya and Sudan still rely largely on mineral (mainly oil) resources, other countries in the subregion have made significant efforts to diversify away from agriculture and manufacturing to the service and high-technology sectors, with tourism taking advantage of historic, cultural and environmental assets. Significant disparities remain in the subregion as measured by the UN poverty index. Libya and Tunisia feature the lowest poverty rates and highest life expectancies, while the highest incidences of poverty are found in Algeria and Sudan (see Table 2.3).

Even though the agricultural sector still accounts for 42.7 per cent of overall employment in Northern Africa, cities have become the main engines of economic growth, with a steady shift to urban economic activities where output per job is on average five times higher than in agriculture (see Table 2.4).

In most Northern African countries, the major economic activities are concentrated in a small number of cities. Tourism, industry and real estate development are the main sectors

MAP 2.1: **NORTHERN AFRICAN COUNTRIES**

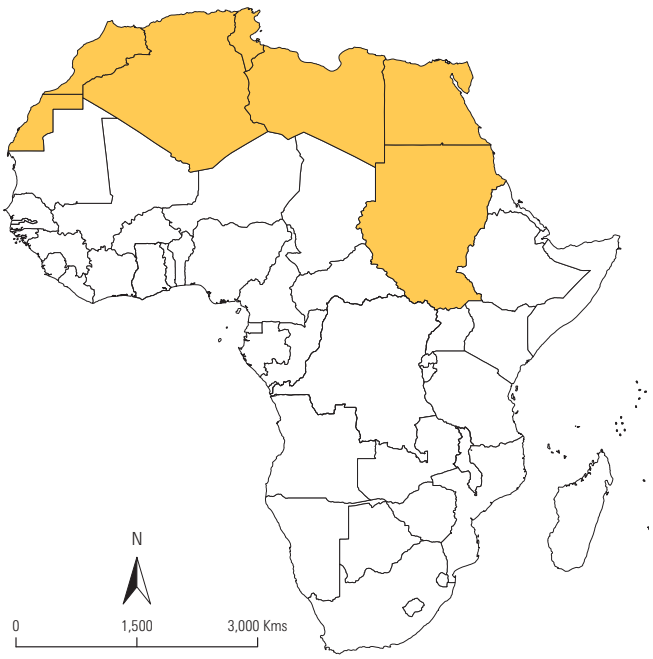
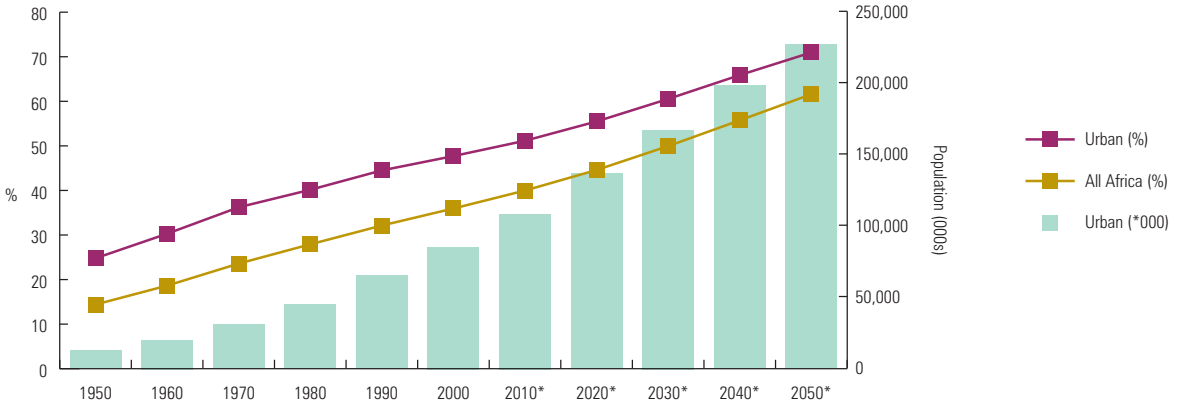


TABLE 2.1: **NORTHERN AFRICA - URBAN POPULATION 1950-2050**

Population	1950	1960	1970	1980	1990	2000	2010*	2020*	2030*	2040*	2050*
Urban (*000)	13,130	20,451	31,461	45,364	65,763	85,656	108,912	137,341	167,876	199,058	227,852
Urban (%)	24.78	30.29	36.22	40.15	44.50	47.71	51.15	55.48	60.53	65.88	70.96
All Africa (%)	14.40	18.64	23.59	27.91	32.13	35.95	39.98	44.59	49.95	55.73	61.59

** Projections*
Source: WUP 2009

GRAPH 2.1: **NORTHERN AFRICA - URBAN POPULATION 1950-2050**



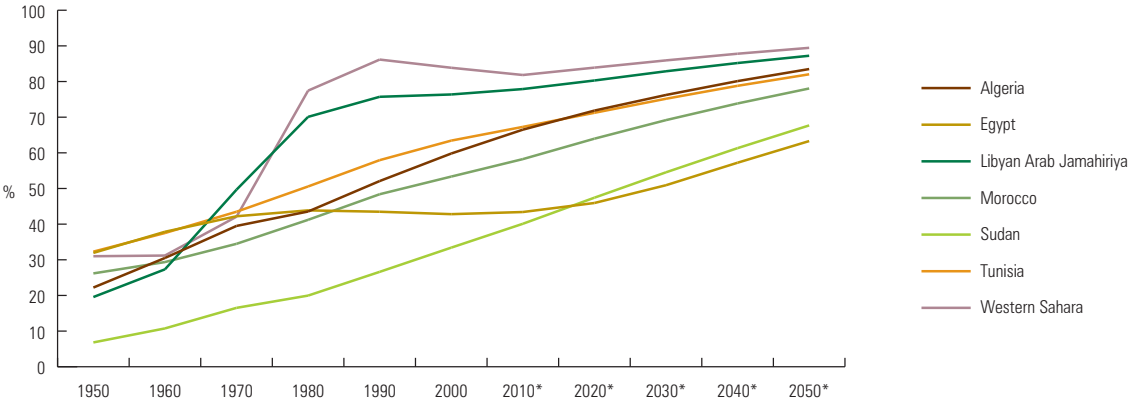
** Projections*
Source: WUP 2009

TABLE 2.2: **NORTHERN AFRICA URBANISATION RATES – 1950-2050 (%)**

Population	1950	1960	1970	1980	1990	2000	2010*	2020*	2030*	2040*	2050*
Algeria	22.21	30.51	39.50	43.54	52.09	59.81	66.50	71.85	76.23	80.12	83.50
Egypt	31.93	37.86	42.21	43.86	43.48	42.80	43.40	45.93	50.92	57.23	63.30
Libyan Arab Jamahiriya	19.55	27.32	49.67	70.09	75.72	76.37	77.89	80.29	82.88	85.19	87.23
Morocco	26.18	29.36	34.48	41.21	48.39	53.34	58.24	63.97	69.18	73.85	78.05
Sudan	6.82	10.75	16.52	19.96	26.62	33.41	40.10	47.42	54.54	61.32	67.69
Tunisia	32.29	37.51	43.48	50.57	57.95	63.43	67.28	71.23	75.17	78.80	82.03
Western Sahara	31.00	31.19	42.09	77.45	86.16	83.86	81.83	83.90	85.93	87.80	89.45

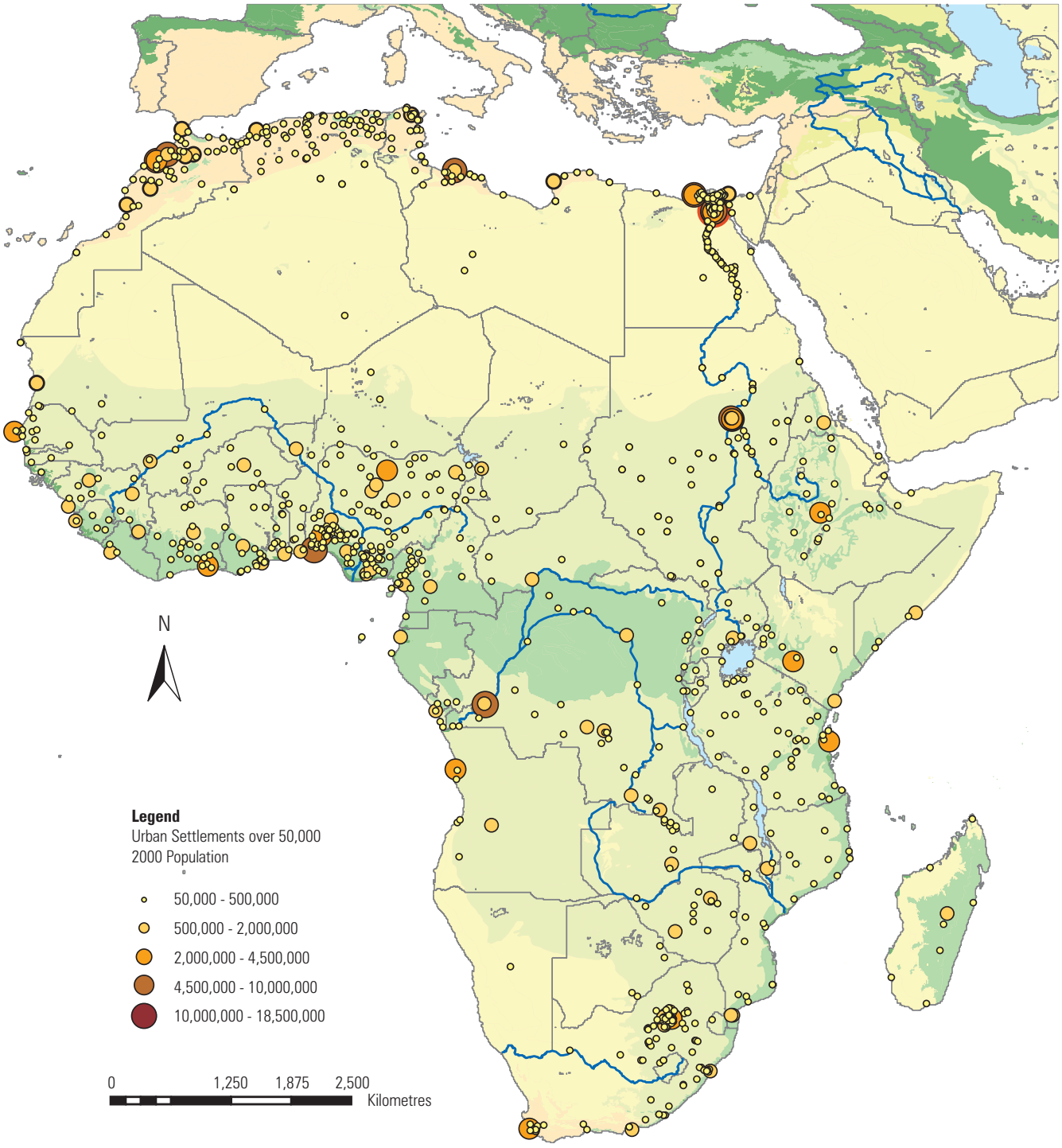
** Projections*
Source: WUP 2009

GRAPH 2.2: **NORTHERN AFRICA URBANISATION RATES – 1950-2050 (%)**



** Projections*
Source: WUP 2009

MAP 2.2: **POPULATION: URBAN SETTLEMENTS OVER 50,000 (YEAR 2000)**



Sources: Centre for International Earth Science Information Network (CIESIN), Columbia University; International Food Policy Research Institute (IPFRI), the World Bank; and Centro Internacional de Agricultura Tropical (CIAT), 2004

TABLE 2.3: **SELECTED HUMAN INDICATORS**

	GNI per head (current US $)		Population living on less than $1.25/ day (%)	Probability of not reaching age 40 (% of cohort)	Adult illiteracy rate (%)
	2005	2008			
Algeria	2,720	4,260	7.7	25.4	6.8
Egypt	1,200	1,800	7.5	28.6	< 2.0
Libya	5,870	11,590	4.6	13.8	..
Morocco	2,000	2,580	8.2	45.3	2.5
Sudan	590	1,130	26.1	39.1	..
Tunisia	2,870	3,290	4.6	23.1	2.6

Source: World Development Indicators Database - April 2009

attracting foreign domestic investment in Egypt, Morocco and Tunisia. This phenomenon reinforces the role of cities as the engines of national economies. Since these three major sectors have been affected by the 2008/09 financial crisis, governments are now looking to enhance their countries' global competitiveness. In Egypt, for instance, income taxes and custom duties have been significantly reduced. As a result, net flows of foreign domestic investment grew from US $2 billion in 2004 to US $13.1 billion in 2008. Nevertheless, Egypt's economy was unable to absorb the 700,000 new entrants in the labour force in 2008.[4]

Cairo and ***Alexandria*** are the main engines of Egypt's economy: 57 per cent of all manufacturing activities are located in Greater Cairo and another 22.5 in Alexandria, the country's main seaport.[5] In Morocco, ***Casablanca*** is host to 60 per cent of industrial workers and 55 per cent of the country's production units,[6] although the city accounts for only 10 per cent of the total population. In Sudan, three-quarters of industrial activities are concentrated in ***Khartoum***, the political and economic capital. However, 74 per cent of the labour force in urbanised areas was employed in the informal sector in 1996.[7]

Despite the steady rise in income per head, unemployment remains a problem and is increasingly concentrated in the larger Northern African cities. In Morocco, urban unemployment decreased only slightly, from 19.5 per cent in 2001 to 18.2 per cent in 2007.[8] As of 2007, 80 per cent of unemployed Moroccans lived in cities, as opposed to 50 per cent in 1990. Urban unemployment disproportionately affects the younger, more educated segment of the population. In 2004, the unemployment rate among urban workers with less than basic education was 11 per cent, compared with 32 per cent among those with secondary education degrees and 35 per cent among university graduates. Although women with higher education degrees represent only about 10 per cent of the labour force, they accounted for some 20 per cent of the unemployed.[9] These higher rates reflect parents' reluctance to let unmarried daughters accept jobs away from home, and of married women to commute for jobs far from home due to childrearing duties.

In Tunisia, unemployment has remained steady at 14.2 per cent of the active population.[10] In Algeria, the 2007 household survey arrived at an unemployment rate of 14.2 per cent for an urban labour force of nearly 6.2 million, and of 13.1 per cent for a rural labour force of 3.8 million. Young people accounted for the bulk of urban unemployment: 35 per cent of the active population under 20 years, 30 per cent of the 20-24 age group and 22 per cent of the 25-29 age group were looking for work in 2007. Taken together, those under 30 years of age account for 71 per cent of urban unemployment, with females accounting for 25.6 per cent.[11]

In Sudan, urban poverty has been on the rise as a result of internal displacement caused by war and natural disasters. Most of the urban poor live in the ***Khartoum*** Governorate, where many internally displaced citizens have found shelter in camps and informal settlements. The western and central Sudanese states also account for significant portions of the urban poor.[12]

In Northern Africa as a whole and despite significant progress over the past decade, disparities persist between urban and rural populations. In Algeria, Tunisia and Morocco, the proportions of the population living below national poverty lines are two to three times higher in rural than in urban areas. In 2004/05 in Egypt's urban governorates, average gross domestic product per head (10,457 Egyptian pounds (EGP),

TABLE 2.4: **VALUE ADDED BY ECONOMIC SECTOR (% OF GDP)**

	Agriculture		Industry		Services	
	2000	2008	2000	2008	2000	2008
Algeria	9	9	59	69	33	23
Egypt	17	14	33	36	50	50
Libya	..	..	..	..	..	..
Morocco	15	16	29	20	56	64
Sudan	42	26	22	34	37	40
Tunisia	12	10	29	28	59	62

Source: World Development Indicators Database - April 2009

TABLE 2.5: **SELECTED URBAN/RURAL INDICATORS**

	Under-5 mortality rate (/1,000)			Access to improved drinking water (%)	
	National	Rural	Urban	Rural	Urban
Algeria	39.0 (2005)	--	--	81% (2006)	87% (2006)
Egypt	40.0 (2005)	56.1 (2005)	39.1 (2005)	98% (2006)	99% (2006)
Libya	19.0 (2005)	--	--	68% (2000)	72% (2000)
Morocco	40.0 (2005)	69.4 (2004)	38.1 (2004)	58% (2006)	100% (2006)
Sudan	115.0 (2000)	144 (1990)	117 (1990)	64% (2006)	78% (2006)
Tunisia	24.0 (2005)	30.0	16.0	84% (2006)	99% (2006)

Source: WHO, 2009; World Bank Development Indicators Database, April 2009

or about US $1,800) was almost twice as high as in the rural governorates in the Delta (EGP 5,245, or about US $920) or Upper Egypt (EGP 5,197), or US $910). The percentage of the Egyptian population living below the poverty line was 5.7 per cent in metropolitan areas, and 39.1 per cent in the rural areas of Upper Egypt.[13]

Similar disparities can be found in most other countries in the subregion. In Morocco, about two-thirds of the population below the poverty line lives in rural areas with limited access to basic social services. Although the national poverty rate has declined from 19 per cent in 1999 to 15 per cent in 2009, most of the gains occurred in cities, as the rural poverty rate has stabilised at 22 per cent and about two-thirds of the poor live in rural areas.[14] In Sudan, education levels in rural areas are significantly lower than the national average. For instance, in 2001, only 30 per cent of males and 10 per cent of females in rural areas were literate, as compared with 60 per cent and 42 per cent respectively in the country as a whole.[15]

The concentration of health services in urban areas and a continuing, albeit diminishing, differential access to clean water sources are reflected in the infantile mortality gap between rural and urban areas. Most Northern African countries feature surfeits of doctors in urban areas and shortages of health care workers in rural and peri-urban areas.[16] In Sudan, nearly two-thirds of health expenditures go to 14 urban hospitals.[17] In addition, fees for health services hinder access for the rural population. In 2007, 25 per cent of the population in rural areas could not afford the fees, compared with five per cent in urban areas. Only one per cent of those who cannot afford the fees in rural areas have access to a social support system, compared with 62 per cent in urban areas.[18]

In Northern Africa, capital cities remain demographically and economically dominant, to the exception of Morocco whose principal city is ***Casablanca***, rather than the capital ***Rabat***. Recent urban demographic growth in Algeria, Egypt, Morocco and Tunisia has taken place in multiple, geographically dispersed, smaller cities, with a concomitant, steady decline in the primacy of the largest conurbations. Algeria's two largest cities, ***Algiers*** (2.8 million) and ***Oran*** (0.77

▲
Casablanca, Morocco. **©RJ Lerich/Shutterstock**

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View towards the medina and harbour in Tripoli, Libya. **©Danie Nel/Shutterstock**

million), are hosts to 10 per cent of the urban population but are now growing more slowly than the national urban average of 2.5 per cent. In Morocco, ***Casablanca*** (3.2 million), ***Rabat*** (1.8 million), ***Fes*** (one million) and ***Marrakech*** (0.9 million) collectively hold 22 per cent of the total and 38 per cent of the urban population. While ***Casablanca's*** population is growing at under one per cent per year, in other cities the rates are close to two per cent. In 2004, ***Tunis*** and ***Sfax***, the second largest city, had a combined population of 1.085 million[19], and accounted for approximately 16 per cent of the urban population. In Egypt, the degree of concentration in the largest cities is much greater, with ***Cairo*** accounting for 22 per cent and ***Alexandria*** for 13 per cent of the urban population as of the latest (2006) census.[20]

Both Egypt and Morocco have adopted ambitious policies to steer new urban populations to new areas. In Egypt, the strategy focuses on the need to stem losses of arable land to urban sprawl, redirecting demographic pressure away from Nile Valley conurbations and on to the adjacent desert plateau. As a result, new settlements are under development in the desert to the east and west of the Nile Valley. Concurrently, major land reclamation projects intended to bring desert land into agricultural use are under way to compensate for urban expansion on arable land in the delta region.

In Morocco, two "new towns" are under development by the dedicated central holding company, Al Omrane, as part of its mandate to eliminate substandard living conditions and focus on social housing; they are known as ***Tasmena***, 15 km from ***Rabat,*** and ***Tamansourt***, 7 km from ***Marrakech***.

Libya is Northern Africa's most urbanised country with 78 per cent of the 6.4 million population living in urban areas. It is also the wealthiest, with gross domestic product per head equivalent to US $13,100 (on a purchasing power parity basis). The country's two dominant cities, ***Tripoli*** (1.1 million)[21] and ***Benghazi*** (1.2 million)[22] account for 36 per cent of the urban population and are growing at 2 per cent and 2.7 per cent respectively. Libya's population is projected to be 80 per cent urban by 2020, with just over 55 per cent living in ***Tripoli*** and ***Benghazi***.

Sudan's total population has more than tripled since 1960 while its rate of urbanisation has quadrupled. Most of this growth has been concentrated in ***Khartoum*** (5.1 million), which currently houses 12 per cent of Sudan's total population and 29 per cent of its urban population. With 4.5 million in 2005, ***Khartoum's*** population is growing at an annual 2.7 per cent pace, adding some 130,000 every year. Demographic growth rates are projected to remain above two per cent into

2025, when the ***Khartoum*** population will reach about 8 million, accounting for 15 per cent of Sudan's total population. Smaller cities are located primarily along the Nile River. The few outliers include ***Port Sudan*** on the Red Sea coast (284,000 in 2008), and ***El Obeidid*** and ***Abu Zabad***, which are located along the major oil pipeline and railway line.

The Links Between Poverty, Inequality and Slums

Between 1990 and 2010, the numbers of urban slum dwellers in Northern Africa decreased from 20,794,000 to 11,836,000, or about 43 per cent.[23] The decline was significant between 1990 and 2005 in Morocco, Egypt and Tunisia, but remained around 12 per cent in Algeria. In , only 1.6 per cent of urban dwellings were classified as substandard in the 2004 census while 99 per cent had access to the municipal water supply system. In Morocco, most of the urban slums are located in the ***Casablanca-Fes-Tangier*** triangle, where economic activity is concentrated. About 30 per cent of the households in Morocco's informal settlements have access to safe drinking water.[24] In contrast in Sudan, the percentage of the urban population living in slums increased from 86 per cent in 1990 to 94.2 per cent in 2005[25] due to both rural to urban migration and internal strife.

Overall, health conditions in the Northern African slums are significantly worse than in non-slum urban areas, as evidenced in Egypt and Morocco, where post-neonatal mortality in informal settlements is twice that prevailing in non-slum areas.

Although they are often lumped together under the general term 'slum', a distinction must be drawn between older, dilapidated areas and informal settlements. Informal settlements include several forms of unplanned urbanisation that require different regularization or upgrading treatments because they amount to irregular subdivisions, illegal occupancy of publicly owned land, or unauthorized construction in environmentally hazardous areas. Older deteriorated neighbourhoods embedded in the urban fabric and former village cores engulfed in urbanisation are also referred to as slums and require special treatment.

Initially built in peri-urban locations, informal settlements are, for the most part, constructed of durable materials and have access to trunk infrastructure such as electricity, potable water supply and some form of sanitation. With high densities on agricultural land, they often lack adequate social infrastructure, including schools and government services, mostly due to lack of vacant sites where these could be provided.[26] The combination of accelerated urbanisation and rapid densification results in overloaded infrastructures and inadequate transportation networks.

In Egypt, the first enumeration of informal settlements was undertaken in 1993 and demonstrated the magnitude of the problem. A more accurate survey based on aerial photography showed that those settlements amounted to over 60 per cent of urbanised areas in 2008.[27] Although the percentage of the Egyptian urban population living in slums decreased from 58 per cent in 1990 to 17.1 per cent in 2005, absolute numbers remain high, with estimates varying between 16 and 21 million in 2008. Informal settlements have invariably grown around villages in peri-urban fringes, and therefore display mixes of rural and urban socio-economic characteristics. In ***Alexandria***, 30 informal settlements house about 1.4 million people, or almost 40 per cent of the city's population. One of these settlements, known as *Naga El Arab*, epitomizes the mix of rural and urban characteristics. In this area, 50 per cent of the streets are unpaved, densities are high, unemployment is running at 17 per cent, high illiteracy rates prevail (35 per cent of males while 62 per cent of females aged 30-65 years of age have never attended school), and access to sanitary, healthcare, education, and community facilities is inadequate. For all these deficiencies, though, most informal settlements in Egypt do not combine the four defining primary shelter deprivations set out by UN-HABITAT which involve access to safe water sources, sanitation, durable housing and sufficient living area. These settlements usually owe their 'slum' status to inadequate sanitation, as connections to municipal networks are often a function of the construction of new primary trunk and treatment systems.

▲
Naga El Arab, Alexandria, Egypt. **©Arndt Husar**

2.2 The Economic Geography of Cities

Economic Inequality

Gini coefficients generally provide good indicators of inequality based either on income or household consumption (except for any mention to the contrary, subsequent Gini coefficients are based on income). Most Northern African countries have maintained the low degrees of inequality associated with urban Gini coefficients ranging between 0.300 and 0.399, which are lower than the 0.46 (*'high inequality'*) average for Africa as a whole in 2008. However, Gini coefficients do not reflect the depth of poverty or such non-economic aspects of equality as access to services, education and health. Algeria is a case in point.

In Algeria, the Gini coefficient decreased from 0.39 to 0.35 between 1988 and 1995 in urban areas, reflecting an annual average 1.46 per cent narrowing of the urban divide[28], while gross domestic product per head *decreased* from US $2,447 to US $1,488 at current prices.[29] Inequality in rural areas was steeper than in cities. Since 1995, the situation has reversed, with economic development resulting in rising incomes and widening disparities within cities, as urban output per head kept rising every year, reaching an equivalent US $4,959 in 2008.

In Morocco, the nationwide Gini coefficient is higher than the urban one, signalling that cities are 'less unequal' than rural areas. In urban areas, the coefficient held steady at a *'relatively low'* 0.377[30] from 1990 to 1998 while output per head increased from US $1,163 to US $1,424 (at current prices).[31] However, at 0.52, the *'very high'* Gini coefficient for ***Casablanca*** in 2006 was significantly higher than that for the urban population as a whole, which goes to show that in the larger cities where business and finance are concentrated, the benefits of prosperity are not so broadly distributed.

In Egypt, Gini coefficients increased from 0.34 in 1990 to 0.39 in 1997 in urban areas, reflecting an annual average 1.78 per cent increase in inequality. During the same period output per head increased from US $682 to US $1,280 (at current prices). Between 2000 and 2005, the share in national income held by the lowest quintile remained stable at 9 per cent.[32]

Gini Coefficients: Measuring the Urban Divide

Named after an Italian statistician, the Gini coefficient is a broad measure of economic inequality, or what has become known as 'the urban divide' in connection with cities. The coefficient measures the distribution of either household income or consumption expenditure as a ratio of 0 to 1, where 0 indicates perfect equality (a proportional distribution of income/consumption), and 1 indicates perfect inequality (where one individual holds all of the income and no one else has any). In between, the coefficients denote the following degrees of inequality: below 0.299: low inequality; 0.3 to 0.399: relatively low; 0.4 to 0.449: relatively high; 0.45 to 0.499: high; 0.5 to 0.599: very high; and 0.6 and upwards: extremely high. The coefficients are generally available for individual countries as well as for rural and urban areas, and more infrequently for individual cities.

TABLE 2.6: **URBAN GINI COEFFICIENTS AND OUTPUT PER HEAD – SELECTED COUNTRIES**

	Algeria		Egypt		Morocco	
	1988	**1995**	**1990**	**1997**	**1990**	**1998**
Urban Gini coefficient	0.39	0.35	0.34	0.39	0.377	0.337
GDP per head (current US $)	2,447	1,488	682	1,280	1,163	1,424
GDP per head (PPP)	4,110	4,531	2,284	3,061	2,724	3,502

Sources: UN-Habitat, 2009; UN Statistics Division

In Tunisia's urban areas, the Gini coefficient worsened somewhat in the first half of the 1990s while remaining about stable in rural areas. In the second half of the 1990s, the situation was reversed as the Gini coefficient remained steady in cities, but increased slightly in rural areas.[33]

In Sudan, inequality has increased significantly. The urban Gini coefficient increased from a *'very high'* 0.56 in 1990 to an *'extremely high'* 0.72 in 1996,[34] creating a potential for social unrest. While urban inequalities have been higher than in rural areas, rural inequality has also been rising steeply, with the Gini coefficient soaring from 0.34 in 1967 to 0.65 in 1996.

How Slum Dwellers Survive

In spite of considerable progress over the last decade, Northern Africa's urban economies remain unable to provide jobs for significant segments of the labour force, as demonstrated by high rates of urban unemployment particularly among young people. Of special concern are the high proportions of individuals with secondary or higher education among the unemployed: 41 per cent in Algeria (2008), 44 per cent in Morocco (2007) and 46 per cent in Tunisia (2004). In addition, significant proportions of urban jobs are part-time or casual - for instance, 32 per cent in Algeria.

In all countries, middle-school graduates make up the largest proportions of the urban unemployed. In Morocco and Tunisia, unemployment is high among secondary school graduates. The superior benefits of higher education in the urban job market are only evident in Tunisia, where a combination of relative affluence, a solid middle class and a strong private business sector (tourism, manufacturing, services, etc.) is generating demand for qualified professional, managerial and technical occupations.

Morocco is the only country in Northern Africa where informal sector employment and production (including construction) have been surveyed (in 1984-85), followed by micro-enterprises in 1988. These surveys have not been updated and similar studies are not readily available. World Bank research shows that since the early 1990s, the unemployment rate in Morocco's informal and micro-enterprise sector has remained at an estimated 30 per cent.

Typical self-advancement strategies differ markedly between slums (as defined by the number of UN-HABITAT shelter deprivations), squatter areas (where lack of legal ownership rights hinders self-improvement strategies) and informal settlements. Squatters include poor families, widows, students and rural migrants who struggle to earn a livelihood. They lack security of both employment and occupancy, with unauthorized or outright illegal tenure. In contrast, residents in informal settlements enjoy secure occupancy rights and are generally upwardly mobile, median-income households seeking to improve their economic situation and social status through investment in asset-building and education.

Rural migrants seek low-skilled and menial jobs such as handling goods, removing construction debris and street-sweeping. They work as day labourers on informal construction sites and similar work, or earn a living peddling produce or rural artefacts. They typically settle in inner city slums, which are well embedded in the urban fabric, as these locations provide more opportunities for work. In older, deteriorating neighbourhoods, people tend to work as shopkeepers, restaurant owners, craftsmen, or in domestic or personal services.

Residents in urban informal settlements work in a variety of occupations that reflect their level of education, such as plant and machine operators, crafts, trades and service workers, clerical workers and technicians. In Egypt, nearly 76 per cent of household heads were employed (2004/05), and less than 25 per cent of the group fell into the following categories: unemployed, not in the labour force, and unpaid family worker.[35]

In informal settlements, residents chart self-improvement strategies based on individual household conditions. In those Northern African cities that are also sources of emigration, the typical pattern is as follows:

- Savings are mobilised to fund the migration of at least one family member. This includes travel and accommodation costs for those most likely to find work abroad. It often happens that the first remittances received go to fund the emigration of a younger sibling.
- Increasing shares of the remittances are saved in order to invest in asset building.
- Purchase of a land parcel. In Northern Africa, ownership of land or property is most lucrative and highly coveted, generating income and conferring

TABLE 2.7: **AGE STRUCTURE OF URBAN UNEMPLOYED**

	Algeria		Morocco		Tunisia*	
	2008		2007		2004	
< 24	453,000	44.8%	326,048	36.8%	158,088	37.0%
25 - 34	435,000	43.0%	393,384	44.4%	165,800	38.8%
35 - 44	90,000	8.9%	121,382	13.7%	64,487	15.1%
45 - +	34,000	3.4%	45,186	5.1%	39,031	9.1%

**Nationwide figures*

Sources: Algeria: Institut National de la Statistique; Morocco: Enquête nationale sur l'emploi, Direction de la Statistique; Tunisia: Institut National de la Statistique

▲
A cobbler in Fes, Morocco. **©Deiter Telemans/Panos Pictures**

TABLE 2.8: **URBAN UNEMPLOYMENT BY EDUCATION LEVEL**

	Morocco		Tunisia*		Egypt	
	2007		2004		2008	
No schooling	54,932	6.3%	52,405	12.1%	48,200	4.0%
Primary & Middle school	427,938	48.7%	179,613	41.6%	614,200	50.4%
Secondary school	207,324	23.6%	159,301	36.9%	104,100	8.5%
Higher education	188,718	21.5%	40,685	9.4%	453,100	37.2%

**Nationwide figures*
Sources: Morocco: Enquête nationale sur l'emploi, Direction de la Statistique; Tunisia: Institut National de la Statistique; Egypt: CAPMAS

social status. Purchasing a land plot is the first step in this process.
- The property is developed as fast as possible given the cumulative remittances and earnings that family members can generate.
- The value of real estate assets is enhanced with commercial and rental developments.
- The cumulative earnings can ensure a good education for the next generation.

In Northern African conurbations, informal settlements are predominantly hosts to medium- and lower-income households ranging from the 60th to the 20th percentile. Some of those with lower incomes can be found renting housing that has been built incrementally by households whose incomes are on either side of the median.

In Egypt, the residents of informal urban settlements represent a broad range of educational levels, incomes and occupations, including lower ranking civil servants.[36] As of 2005, the majority (52 per cent) had primary school education or more; 22 per cent were illiterate and 20 per cent could read and write. Approximately 25 per cent had an intermediate level of education and 16 per cent had a university degree. Fifty-five per cent of informal settlement dwellers were found to be regular wage earners, a proportion higher than the national average that reflects the need for low-income household members to cumulate incomes if they are to survive economically.[37] This multiplicity of wage earners and diversity of income sources is the cornerstone of household strategies for self-improvement.

In Northern Africa, informal settlements consist of multi-storey buildings on agricultural land held under legal though mostly unregistered titles. This category of settlements is referred to as *habitat spontané* in Morocco, Tunisia and Algeria. The typical settlement features only one shelter deprivation, and then only temporarily, i.e. water-borne sewerage, until the municipal network is extended to the area. These settlements are widely viewed as middle-class neighbourhoods. Household turnover is limited and follows the same pattern as in other middle-class areas. Despite the dense urban fabric, these settlements are attractive to a large segment of the population.

As settlements mature, they develop into dense urban neighbourhoods that are well integrated in the city's socio-economic fabric. They attract those families with above-median incomes whose wage earners are in professional or managerial occupations in the public or private sectors. Algeria, Egypt, Morocco, Sudan and Tunisia all run programmes for skills-based education (from vocational training to commercial schools, including computer training). However, and as in many developing countries, formal job creation has lagged behind the large numbers of new entrants into the labour force. If the creation of small and micro-enterprises is to be promoted, greater emphasis should be put on the development of entrepreneurial and managerial skills.

Addressing Inequality and Urban Fragmentation

The significant reduction in the overall number of slum dwellers (from 20,794,000 in 1990 to an estimated 11,836,000 in 2010) in Northern Africa is the result of vigorous and effective government programmes for slum upgrading and prevention, particularly in Egypt, Libya and Morocco. Between 1990 and 2010, Libya reduced its slum population by 71 per cent and Egypt and Morocco by 65.9 per cent and 65 per cent respectively.[38] In Morocco, 4.4 million people have moved out of slum conditions over the past 20 years, with the percentage of the urban population living in slums declining by about two thirds from 37.4 per cent in 1990 to an estimated 13 per cent in 2010. Egypt managed to reduce slum prevalence from 50 per cent in 1990 to an estimated 17.1 per cent in 2010, improving the living conditions of 11.2 million people. Tunisia has essentially eliminated all slums through a vigourous programme managed by *Agence de réhabilitation et de rénovation urbaine* (ARRU). Since the 1980s, the Tunisian government has been controlling urban sprawl, improving housing conditions in the older districts, regularizing substandard fringe settlements and providing the urban population with potable water, sanitation, schools and health facilities, especially in informal peri-urban areas. These achievements highlight one of the strengths of ARRU, i.e., its effective coordination with public authorities, and more specifically its ability to adapt to the greater role local authorities are playing as part of decentralization, and to build their inputs into its own policy schemes.

Today, thanks to the determined policies of a number of countries, nine out of 10 urban slum households in Northern Africa suffer from only *one* shelter deprivation, which typically involves improved sanitation in Egypt and adequate living areas in Morocco.

If it were to accommodate nationwide demographic growth (1.5 per cent on an annual average basis) and the associated 50 per cent proportion below 25 years of age, Egypt should build housing for 500,000 households annually. At the moment, government production is only about 85,000 units, which implies that 80 per cent of demand must be met by the private sector, both formal and informal. Government programmes offer a range of housing options: apartments (63 m^2) for low-income families; 30-40 m^2 units at nominal rents for families living below the poverty line; serviced plots (150 m^2) subject to a land or ground floor coverage ratio of 50 per cent and a maximum height of three floors; apartments on an ownership or rental basis (80^+ m^2) for medium-income families; and rural dwellings in new land reclamation areas. All these social housing programmes are heavily subsidized. The government contributes front-end subsidies and below-market interest rates on housing loans payable over 25 to 30 years. For serviced plots, loans are repaid over 10 years.[39]

In practice, though, these public sector programmes have all experienced delays. Deliveries have been running at 47 per cent of production targets, prompting the government to work in partnership with private developers to mobilise more resources and increase production. Still, this partnership programme is of particular interest since it has managed to attract private sector investment into social housing, with discounted land prices as an incentive. Tracts of land in new towns and urban expansion areas are allocated to developers at highly subsidized prices (EGP 70 (or US $12.00) per sq m for serviceable land, while the cost to the government is about EGP 400 (or US $70.00) per sq m for serviced land) on condition that developers fund on-site infrastructure and build housing for families with incomes below the national median (i.e., EGP 2,500 (or US $438.00) per month) on the land parcel. Under this type of partnership, 17,000 units were built in 2009, and a total of 300,000 are expected between

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Khartoum, Sudan. **©Galyna Andrushko/Shutterstock**

BOX 2.1: **EGYPT'S SUCCESSFUL ORASCOM HOUSING COMMUNITIES PARTNERSHIP**

▲
Orascom affordable housing in Haram City, Egypt. **Photo courtesy of Orascom**

In 2006, Orascom Group, one of Egypt's largest business concerns, established **Orascom Housing Communities** (OHC). This is a joint venture with Homex, a development company focusing on affordable housing in Mexico, and two American investment companies, Blue Ridge Capital and Equity International. The rationale was to build affordable housing in Egyptian cities under a government programme that allocates subsidized raw land in new towns to developers and investors on condition that they build an agreed number of units for lower-income households on the land.

Orascom's largest project so far consists of 50,000 units to be built between 2006 and 2013 on 8.4 million m^2 in 'October 6' City. The target group is households with monthly incomes below median (EGP 2,500, or US $438.00). In the first phase, sizes varied between 38 to 63 m^2 and units were offered on a lease/purchase basis (over 10 to 15 years on affordable financial terms). Cultural preferences for the larger units have led OHC to focus on the latter in subsequent phases. To reduce construction costs, OHC uses load-bearing walls and a compact housing typology of four units per two-floor block that is well-suited to desert climate conditions. Government subsidies for lower-income families (up to 15 per cent of the cost of the house) are offered as front-end lump sums, reducing down-payments in order to facilitate access for young families. On top of this, OHC is setting up a microfinance scheme to help lower-income families make the required down-payment. A special scheme can assist any residents who run into financial difficulties and are unable to pay mortgage instalments. To pre-empt on these problems, households can first move into smaller units that are affordable to them and can change to less expensive rental units if difficulties persist.

As part of the project, OHC builds supporting community facilities, including schools, a hospital, commercial areas, a cinema complex, sporting clubs and day-care centres, which are to be managed in cooperation with the Egyptian government and/or non-governmental organizations. OHC will retain majority ownership of retail and commercial properties while leasing space to third parties.

On top of this comprehensive approach to housing development for low-income households, Orascom emphasizes sustainability, women and youth. Wastewater is collected and recycled to irrigate landscaped areas and the central open space as well as other smaller 'green' areas, sports fields and play-grounds. A local company collects and recycles solid waste. In addition, OHC has partnered with the Social Fund for Development, purchasing goods from Fund-sponsored small entrepreneurs, and has opened three youth training centres. OHC has also set up the 'El Amal' centre to provide a safe haven for street children, and a centre for women's skills development, both operated by charitable organizations.

Construction began in 2007 and the first residents moved in by late 2008. At that time, the main water line, electricity supply and sewage plants were in place and two out of the eight zones were completed. By the end of 2009, 12,000 units had been built, 3,000 more were under construction, and since then sales of completed units have picked up, reaching an average 15 per day.

Orascom now plans to develop more large-scale housing estates in Egypt and other countries facing shortages of affordable housing.[41]

BOX 2.2: **EGYPT'S INFORMAL SETTLEMENT DEVELOPMENT FACILITY**

In 2009, the Government of Egypt set up a dedicated facility to support informal settlement upgrading. The Facility is under its direct control and run by an executive director and a board chaired by the Minister of Local Development, with representatives from six government departments and three civil society organizations, together with three experts. The Facility was established and capitalized with a government seed grant of EGP 500 million (or US $87.6 million), EGP 200 million (US $35 million) in budget allocations and EGP 100 million (US $17.5 million) in grants from USAID.

The executive director of the Facility has devised a national action plan, which includes the following:

- Knowledge management, including maps of all informal settlements;
- A list of programmes and projects to be implemented;
- Identifying the technical assistance and capacity-building to be extended to those local authorities implementing projects;
- Partnerships with stakeholders, including private sector entities;
- Scheduling of projects; and
- A priority to land-based financing to generate revenue.

The Facility has requested a government allocation of land to be used as an asset in the new towns to recapitalize and speed up disbursements and avoid breakdown. In addition, the Facility has requested the following:

1. About 75,000 subsidized housing units for priority target groups requiring relocation, namely:
   - Families living in environmentally hazardous, life-threatening areas. These have been mapped across the whole country for the first time.
   - Families living in shacks, in structurally unsound buildings, and alongside health-threatening activities (dumps, noxious industries, etc.); and
2. The use of land-based financing for on-site re-housing of families living in unsanitary, dilapidated dwellings on publicly-owned land.

In the first phase, the Facility has launched 25 pilot projects testing various approaches in five cities in Upper Egypt, four cities in the delta, and the three cities along the Suez Canal. The Facility is also providing technical assistance to Alexandria for its upgrading projects, which the governorate is funding from its own resources. This first phase does not include projects in the Greater Cairo region.

As it stands, Egypt's Informal Settlement Development Facility faces the following two major challenges:

1. Creating a legal framework that can accommodate the complex land transactions required for land-based financing of upgrading projects; and
2. Ensuring repayment by borrowing local authorities.[45]

2009 and 2015.[40] The Orascom Housing Communities scheme in the 'October 6' new town demonstrates the strong potential of such partnerships (see Box 2.1)

The cost to the Egyptian government of extending infrastructure to project sites in the desert has increased markedly from EGP 10.4 billion (or US $1.8 billion) in 2000/01 to 17.2 billion (US $3 billion) in 2004/05 to 36 billion (US $6.3 billion) in 2008/09 as planned urbanisation on the desert plateau gathers momentum and moves further away from the Nile valley. Land-based financing is used to defray the costs of infrastructure. Sustained demand for land and associated rapid price escalation in the new towns has enabled the government to meet the costs of infrastructure provision to new urban extensions and derive a net profit of EGP 200/m² (or US $35) on the land it sells in those areas (except for the subsidized land allocated for social housing).[42]

Still in Egypt, another determined 10-year government programme has combined regularisation, infrastructure improvements and the demolition of housing built in hazardous areas. As a result, 904 informal settlements were upgraded between 1994 and 2004. Despite the emergence of new ones, the number declined from 1,174 to 1,121 over those 10 years, while still extending over a significant 1,943 km². It should be noted that 70 per cent of slum dwellers are concentrated in the two largest cities, ***Cairo*** and ***Alexandria,*** a feature shared by other North African countries. As in other developing countries, informal settlements in Egypt are often only one step away from moving out of the 'slum' category: for 85 per cent of the 1,014 settlements in this category, this would involve better compliance with building code requirements; for the remaining 15 per cent that encroach on government-owned land, upgrading would only require legalization of tenure.[43]

Egypt has devised a national strategy to contain the spread of unplanned urbanisation around the following four principles:

- Establishing urbanisation perimeters for towns and villages and developing plans for areas within the perimeters;
- Surrounding existing, rapidly growing settlements with belts of planned projects;
- Increasing the production of housing affordable to low- and limited-income groups; and
- Steering rural migrants to the new settlements in developed areas in the desert.

Past experience demonstrates that informal developments cannot be contained by regulatory measures alone, since enforcement is at best sporadic due to corruption among local district officers in charge of authorisations and inspections.

In ***Alexandria***, the governorate has launched a demand-driven upgrading programme to improve basic infrastructure and other community services, generate economic opportunities for residents and make tenure more formal and secure through proper documentation. The first phase involved three large settlements, or about 15 per cent of the Governorate population. Four additional settlements are to be upgraded in the second phase of the project.[44]

In 2009, the Egyptian government set up the Informal Settlement Development Facility, which provides funding and technical assistance to public authority projects (see Box 2.2).

In Morocco since the 1980s, authorities have acted vigourously to eradicate *bidonvilles* (French for 'shantytowns') through upgrading, construction of apartments and provision

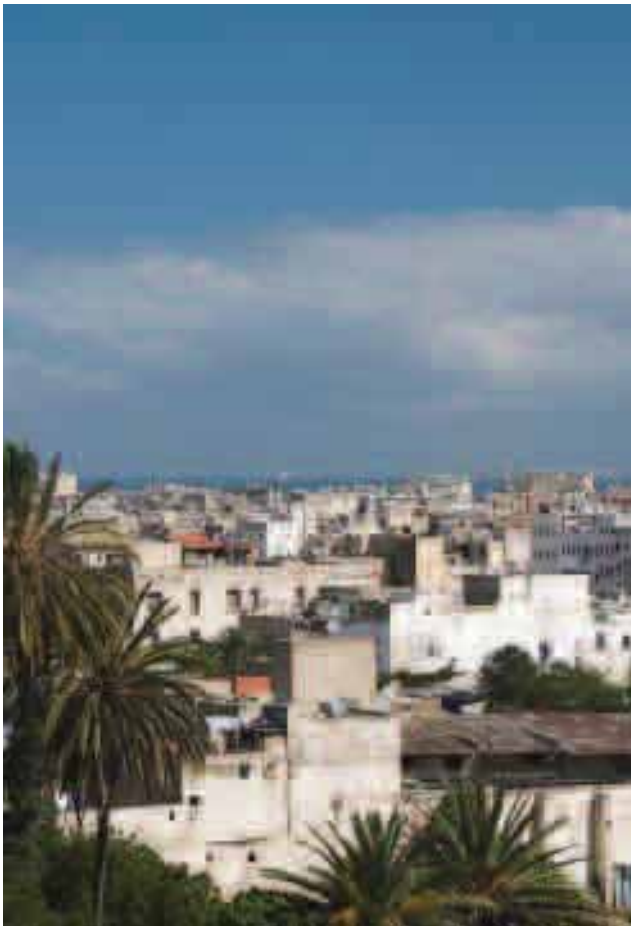
of serviced plots. In 2003, the Moroccan government adopted a new strategy that granted the private sector a more significant role in the provision of affordable housing and credit schemes for low-income earners who had no access to mortgage finance. In 2005, the government launched the *Cities without Slums* upgrading programme in 250 neighbourhoods in 25 cities. The scheme targeted neighbourhoods with high unemployment, poor housing conditions and lack of access to basic services. An equivalent of US $900,000 was allocated to each neighbourhood. A consultative participatory process has been established to enhance social inclusion. This programme has already enabled Morocco to reduce its slum population by 65 per cent between 1990 and 2010.

Since 2004, Al Omrane, the dedicated government-owned holding company has played a major role in Morocco's *Cities without Slums* programme, funding the construction of affordable urban housing through its real estate development arm. In the process, the agency has contributed to the country's poverty reduction efforts through the creation of economic activity zones for small- and medium-sized enterprises in its urban projects. These cover a wide range of schemes: re-housing of families living in makeshift dwellings (over 75,000 in 2007 and 2008); upgrading underserviced neighbourhoods; regularising land tenure in informal settlements; and developing new towns and urban expansion zones where a share of the land is allocated to construction of affordable housing. Between 2003 and 2009, Al Omrane completed 724,000 housing units for a cumulative cost of 35.9 billion dirhams (MAD) (or US $4.6 billion).

Morocco's newly adopted capital expenditure strategy for 2008/12 focuses on greater private sector involvement through tax incentives, as well as development of mixed-income urban housing projects targeted at expatriate Moroccan workers. Al Omrane plans to build 30,000 housing units with a sales price of MAD140,000 (US $17,800); 37,200 for MAD250,000 (US $32,000) for moderate-income households; and another 37,200 at market rates to cross-subsidize the units for lower-income households. The lower-cost units are a new product that will be affordable to households with monthly earnings between MAD1,800 and 2,700 (US $229 and US $343) and will be available on a priority basis to those living in dilapidated units, as well as to public sector employees. Buyers of low-cost units will be eligible for mortgages guaranteed by *Fonds de garantie pour les revenus irréguliers et modestes* (FOGARIM), an agency created in 2004 to encourage banks to provide long-term credit to lower-income individuals and those with a less than steady source of income. The Fund guarantees monthly loan repayments of up to MAD1,500 (US $190). By mid-2009 the Fund had guaranteed 48,000 loans worth MAD7 billion (US $890 million).

In Tunisia, the government's direct involvement in the production of affordable housing has declined significantly in recent years. One of the main protagonists was the *Société nationale immobilière tunisienne* (SNIT) an independent government-owned company whose production peaked at 15,000 units a year during the Sixth Plan (1982/86). As of 2002, however, the number had fallen between 1,000 and 1,500 units a year. Given that less than one per cent of the urban population was classified as living in substandard housing in the 2004 census, current government policy has shifted to infrastructure improvements in working class neighbourhoods[46], including street lighting, water and sewer systems. The implementation of upgrading policies is the responsibility of the national *Agence de réhabilitation et de rénovation urbaine* (ARRU), which since 2002 has spent over US $72 million on urban projects that have improved living conditions for 1,140,000 people.

These policies reflect a shift away from the traditional role of Northern African governments in the 1970s and 1980s, when urban improvement schemes were the sole responsibility of specialised public agencies. Since the turn of the century, an increasingly sharp distinction has been drawn between the regularisation and servicing by local authorities of land that has already been developed, on the one hand, and, on the other, the assembly of serviced land to be developed into mixed-income housing by public and para-statal entities and private developers, with various cross-subsidisation schemes to secure private sector involvement. This approach has allowed the leveraging of public funds to deliver a range of new, improved affordable housing, in the process causing significant declines in the numbers of slum dwellers and underserviced households in informal settlements.



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Casablanca, Morocco **©RJ Lerich/Shutterstock**

2.3
The Geography of Urban Land Markets

Forms of Tenure and Rights

Despite geographic and economic differences, a shared legacy of laws and institutions governing tenure, use, control and taxation of land has generated strong similarities in Northern Africa's urban land markets. Prior to Western colonization, all these countries were under Ottoman rule, where tenure systems were still solidly anchored in *sharia* law and reflected the evolution of Islamic jurisprudence over 1,500 years. Overlays of primary and derivative rights would combine to create a complex system whereby ownership of shares of a land parcel or a building could be held by different individuals. An 1897 Ottoman statute abolished government ownership of agricultural land across the empire and allowed beneficial rights holders to turn their tenure into fee-simple ownership. As a result, urban settlements were surrounded by privately-owned land.

Western colonial rule strengthened individual property rights and established the right for foreigners to own real estate. After independence, land reform combined with nationalisation of large land holdings and the repossession of property owned by foreigners who had left the country. These moves added sizeable amounts of well-located land to public land reserves. Nevertheless, public land holdings on the urban fringes fell short of accommodating the accelerated urbanisation of the 1970s and 1980s when the surface area of the main cities doubled as a result of rural-urban migration, natural demographic increases and massive inflows of private capital and remittances into urban real estate. As urban expansion was no longer constrained by government ownership of land (which, incidentally, had prevented fragmentation and conversion of agricultural land to urban use), the result was a proliferation of unplanned subdivisions of fields and rapid densification of peri-urban informal settlements.

Inheritance laws mandating division of assets among heirs have added to the fragmentation of property ownership, which turns modern-day property registration methods into a serious challenge, based as they are on recording the physical attributes of a property, as opposed to traditional systems that recorded the attributes of the parties involved.

In Egypt, the bulk of government-owned land is located in the desert. Turning privately-owned agricultural land to urban uses is prohibited, except within the designated perimeters of urban settlements. Despite government efforts to develop state-owned desert land, the formal sector has been unable to meet the demand for affordable housing. As a result, vast informal housing areas have been developed illegally on agricultural lands on urban fringes and on government-owned desert lands on the edge of the Nile valley. A 2007 World Bank study on Egyptian informal housing enumerated as many as 8.5 million informal housing units, of which:

- 4.7 million units on agricultural land within or outside municipal boundaries;
- 0.6 million on government-owned desert land within municipal boundaries; and
- 3.2 million outside administrative village boundaries.[47]

In ***Cairo***, 81 per cent of informal units sit on privately-owned agricultural land, with 10 per cent on government-owned desert land and the remainder on state-owned agricultural land.[48]

In Libya, all private property rights were abolished in March 1978, although beneficial rights to residential dwellings were maintained. The government liberalised property regulations in the early 1990s and transferred ownership of dwellings to sitting occupants who, with the exception of low-income families, made monthly mortgage payments to the government equivalent to one third of the former rent. At present, private and public land markets operate side by side, but property rights are not secure and there remains a significant degree of regulatory uncertainty.[49]

Morocco first introduced a land registration system in 1913, under colonial rule, to delineate and title all privately-owned property. In recent years, the housing shortage has driven up urban land prices.

In Tunisia, as of 2006 most land was privately held and collective land, as defined by a 1901 law, is typically tribal land. A 1964 law allowed the conversion of communal land into private holdings. In 2006, government-owned land still represented a significant portion of non-urban land, but private property was growing by an average 70,000 hectares per year.[50]

In Sudan, land law and tenure combine customary law, *sharia* and English common law and a host of tribal customs in the southern region, each of which creates distinct rules, regulations and practices. Customary law is given greater importance in the South, whereas *sharia* and common law are dominant in the North. In many instances, a combination of tradition and custom prevails, even when they are not in line with formal regulations. [51]

In addition to the private sector, charitable religious endowments, the *awqaf* (plural for *waqf,* also known as

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Casablanca, Morocco. **©Giorgio Fochesato/iStockphoto**

'habous') are managed by a dedicated government department. To this day, they still control significant amounts of property in Northern African cities, particularly in the historic centres. They typically hold ownership rights to all or part of 20 to 40 per cent of the properties.[52] These endowments cannot dispose of such property and are not inclined to keep non-revenue earning buildings in a good state of repair, which contributes to the deterioration of historic centres. Tunisia is the notable exception since the *awqaf* were nationalised in 1956 and their properties transferred to the municipal authorities. In Egypt, a system of land swaps has been established, enabling the Ministry of *Awqaf* to exchange property in the city centre for land of equivalent value on the outskirts of the city.

Urban Land Institutions

As might be expected, land tenure systems in Northern Africa are heavily influenced by Islamic jurisprudence regarding ownership transfer and inheritance of both primary and derivative rights. In contrast, development regulations have retained little from the historic rules that governed land development and building construction. The regulations that apply today are adapted from the Western practices first introduced under colonial rule to develop European-style neighbourhoods.

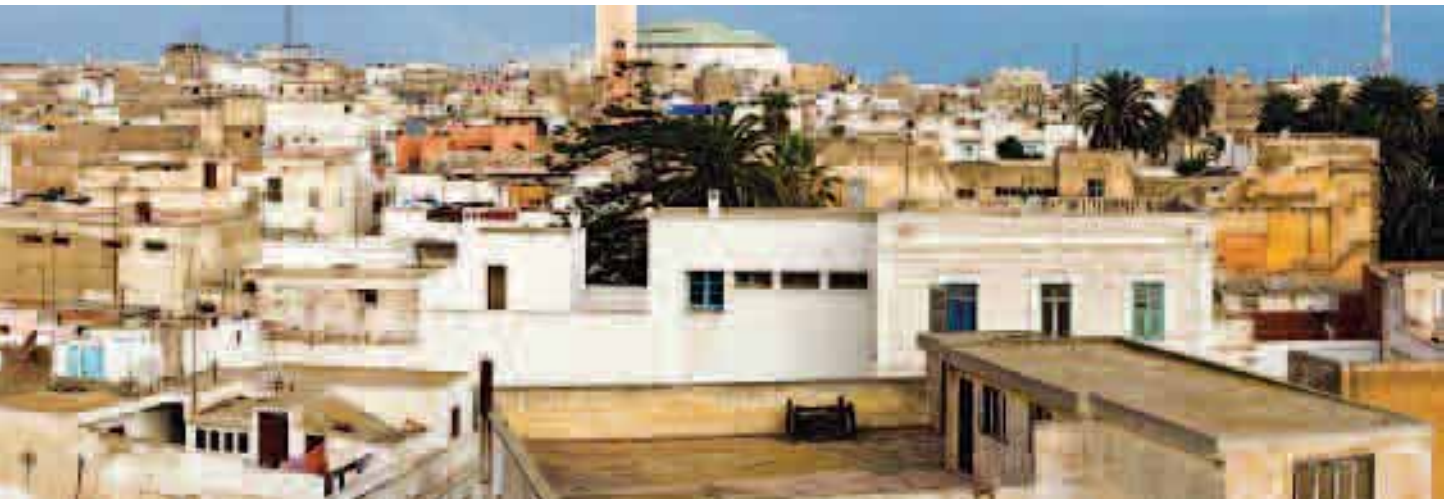
Development regulations in Algeria, Morocco and Tunisia include zoning and dimensional requirements to implement locally-designed urban plans. Municipalities are also allowed to designate areas for rehabilitation or redevelopment. In Egypt, laws enacted in 1978 and 1982 introduced new regulations for the planning, subdivision and use of land, also allowing regularization of unplanned informal settlements. In 1995 and 1997, new laws authorized the sale of government-owned land to private institutions and adjusted regulations on subdivisions according to the type and proposed use of land.[53] Egypt's law N° 119 of 2008 amalgamated all current legislation and regulations governing land development and building construction, including planning design, subdivision and dimensional regulations, building codes, management of property held in co-ownership and tenancy rules. The country's urbanisation strategy unequivocally steers new developments toward desert land, with government departments and governorates facilitating implementation.[54] Despite these regulations, chaotic urbanisation has continued to spread unabated due to lack of effective control over land use, except for health and safety concerns e.g. nuisances caused by polluting activities and structurally unsound buildings.

In Libya, the government controls the planning and implementation of large projects, including new residential districts. Unplanned areas house mainly lower-income contracted migrant labour and illegal migrants. In Sudan, accelerated urbanisation in greater ***Khartoum*** has overpowered the regulatory framework, resulting in chaotic land development.

How Land Markets Operate

The main factor behind urban land development in Northern African countries is the high cost and rapid appreciation of land. No other asset has risen in value at this pace in the subregion, with average prices doubling every three years since 1970. As a result, central city densities are high and new developments have been occurring primarily on urban peripheries. Populations in historic centres have been shrinking as older residential buildings are converted to commercial uses.

Sharp discrepancies can be found between land markets in older districts, where property prices are distorted by various forms of rent control, and in urban fringes, where formal and informal settlements are under development to host urban populations that continue to grow at annual rates varying between 1.7 per cent in Tunisia to 2.5 per cent in Algeria.[55] In the face of sustained demand for land and government inability to deliver adequate amounts of serviced land, public authorities have come to tolerate informal urban sprawl as well as piecemeal enforcement of regulations and codes, as urbanised areas have doubled or even tripled in size. Underserviced areas have grown at rates two to three times faster



than urbanised areas as a whole. The percentages of the urban population living in informal settlements in Northern Africa range from 20 per cent in ***Tunis*** to upwards of 60 per cent in the ***Cairo*** Region. However, it is important to note that buildings in these settlements are of reasonably good quality, layouts are rectilinear and, except for Sudan, they rarely suffer from more than one shelter deprivation, usually lack of water-borne sewerage, or overcrowding.

In the informal sector, rising land prices have encouraged a resurgence of such traditional ownership patterns as joint ownership and various tenancy arrangements based on derivative rights. In Morocco, in particular, it is common for one party to purchase the land and for another to pay for the bulk of the building, leaving it for each party to complete the building as they see fit. In some cases, individuals sharing a common bond (professional association or kinship) have established cooperatives to acquire and subdivide land.[56] These practices enhance the affordability of urban land and housing.

In Egypt, raw land prices vary significantly, ranging from EGP 450/m^2 (or US $79) (for agricultural land that is expected to be serviced in the foreseeable future and where there is a likelihood of securing a building permit) to EGP 250/m^2 (or US $44) in more isolated locations. As might be expected, private freehold land with formal tenure status tends to command the highest prices and is often purchased as a speculative investment.[57] In informal settlements, land prices vary widely depending on location and access to services. For instance, in the north-eastern sector of the ***Cairo*** Region, the average land price increased from EGP 280/m^2 (or US $49) in 1997 to EGP 1,800/m^2 (or US $315) in 2003 as a result of proximity to the city centre and access to roads, infrastructure and public transport.[58] Serviced building plots on government-owned land are typically available at prices ranging from medium to high, but have also generated high degrees of speculation.

Still in Egypt, two main development patterns prevail. Private developers and small-scale contractors actively participate in the illegal subdivision of agricultural land for the construction of informal housing. As for developers of legal subdivisions, they have tended to rely on government-supplied land, as regulations and mandatory service standards have made it difficult to develop privately-owned agricultural land in the absence of primary infrastructure systems. The Government is a major developer in its own right, providing serviced sites in the desert for settlement by new communities, where land prices have been doubling every other year. As a result, a growing number of investment companies have become involved in financing urban development on government-provided land. In Egypt, private financing of land development has grown from about EGP 15 million (or US $2.6 million) in 2005 to EGP 3,000 million (US $526 million) in 2009; today, 16 banks and nine investment companies, with a current capitalization of EGP 1,000 million (or US $175 million) are active in the real estate market.

Land Markets, Urban Form and New Spatial Configurations

The urban form of most Northern African cities consists of a series of historic layers characterised by relatively homogeneous land markets, each with their own rules. The fabric of the historic city (*medina*) typically consists of a dense agglomeration of buildings subdivided into small dwellings, with commercial uses on the ground floor. Some of these historic centres feature on the UNESCO World Heritage List, including medieval ***Cairo***, the *medinas* of ***Tunis***, ***Fez***, ***Meknes*** and ***Marrakech*** and the *kasbah* of ***Algiers***.

Furthermore, to the exception of Tunisia, significant proportions (often up to 40 per cent) of historic district properties are owned by the *awqaf* charitable foundations. Many properties have deteriorated for lack of maintenance by absentee owners, as their rent-controlled housing attracted successive waves of rural migrants. Governments have deployed programmes to restore and preserve the historic centres as a valued cultural heritage and an architectural and urban legacy that can be attractive to domestic and

foreign tourism. This effort is made more complicated by the fragmented ownership patterns and the reluctance of the *awqaf* to participate in improvement initiatives that do not generate revenue. Nevertheless, significant improvements to public spaces, streets, facades, markets and historic buildings have been made in the majority of the listed historic centres.

The next historic layer in Northern Africa's typical urban form is the *planned city* as developed during the colonial period. This consists of a Mediterranean urban pattern of multi-storey buildings, with distinct neighbourhoods reflecting the socio-economic mix of the population. In these planned cities, large proportions of the centrally located residential stock have been converted to offices as the economy began to shift to tertiary activities. Following independence, planned extensions were built through a combination of public improvements and private investment. From 1975 to 1985, land values doubled every three to four years while prices on urban fringes rose by a factor of 15 to 20.[59]

The third layer is the *peri-urban informal urbanisation* that began in the 1970s and has accommodated most of Northern Africa's sustained urban demographic growth rates of 2 to 4 per cent on an annual average basis since the 1980s. This trend was facilitated by the post-colonial resurgence of traditional tenure systems, including:

- The right of settlers to claim ownership of wasteland that they have improved;
- Acquisition of property rights through adverse possession, with a typical 10-15 years' lapse of time depending on the country; and
- Protection of inhabited dwellings from demolition regardless of regulatory status, except where the area or buildings are unsafe, or the site is needed for public use. The agency appropriating the land must provide relocation housing.[60]

These traditional rights have protected squatters on idle government-owned land and facilitated the regularisation of informal settlements. Where urbanisation of agricultural land is prohibited, land and/or property rights are transferred by notarial private contract but without the registration of the deeds or issuance of titles that are mandatory under property registration rules. In practice, this has created two parallel property transaction systems operating simultaneously in one and the same city. Unregistered titles remain commonplace and are upheld by courts, but cannot be used to challenge any owners with registered titles. Although the high cost of land is an incentive to register titles, registration is relatively expensive and therefore acts as a deterrent.

Since the 1990s, specialized public and para-statal agencies have been developing a fourth type of urban layer, namely *planned urban extensions, new towns and development corridors*. In response to high rates of urban demographic growth and associated demand for housing, these agencies began to redirect expansion beyond the urban fringe. These new districts, towns and corridors are reshaping larger centres into structured city regions. They are also effectively changing the spatial distribution of land values as these increase in and around newly developed sites. For instance in Egypt between 1995 and 2007, 110 km² of desert lands were urbanised while expansion on agricultural lands was contained to 55 km².

Across Northern Africa today and through para-statal agencies and local authorities, government plays a major role in the *formal urban land market*, opening up new areas for development with transportation and infrastructure extensions in a bid to attract private development and channel it to desired planned locations. Public authorities also redevelop dilapidated slums in city centres to take advantage of the commercial potential and release higher land values.

The Shortcomings of Conventional Urban Land Administration and Management

Over the next decade, the subregion's urban population is to grow by an estimated 27 million and both provision of serviced land and enforcement of development regulations will continue to pose significant challenges to governments. The demand for affordable housing, both rental and home-ownership, will require significant improvements in land management practices and the definition of public interventions that ensure complementary roles for local authorities and the private sector.

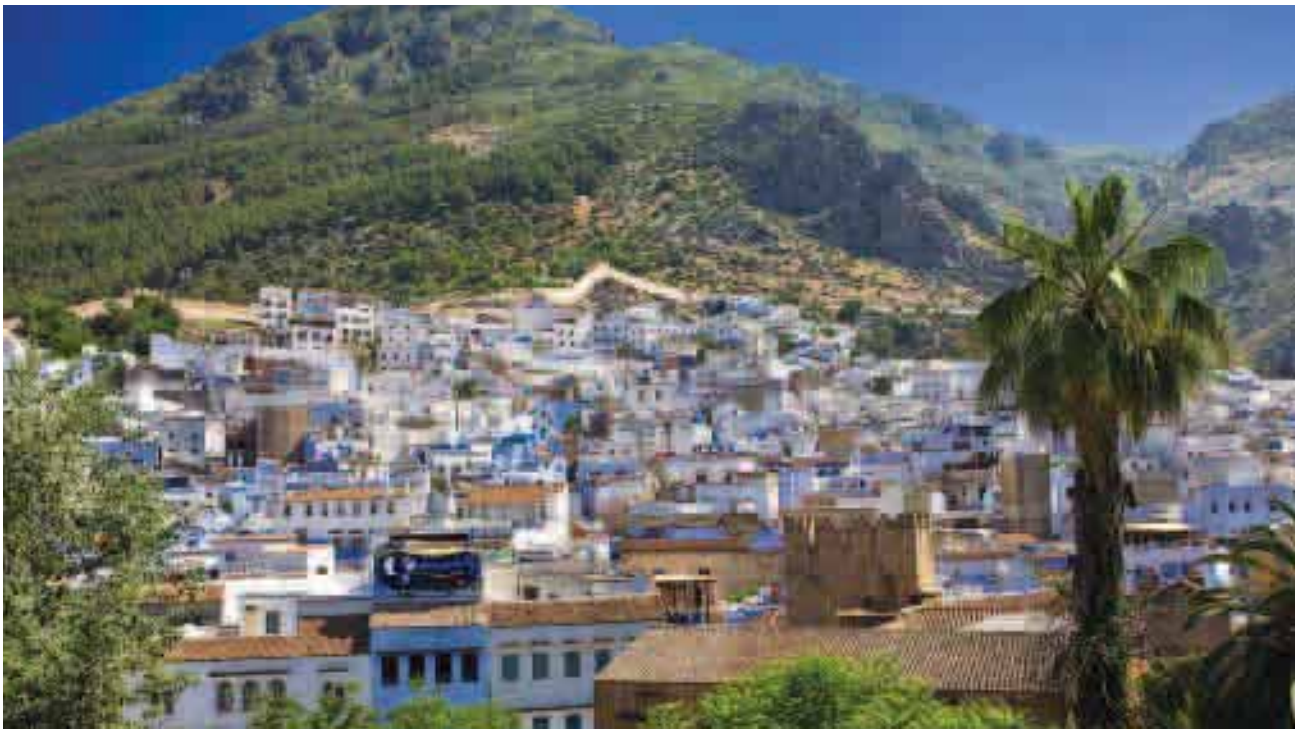
Across Northern Africa and since the 1980s, various decentralization laws have shifted responsibility for land planning and management to local authorities. However, political and fiscal decentralisation has lagged behind this functional devolution. Despite the growing powers of governors and the mayors of large cities, decisions regarding large projects are still made at the ministerial or cabinet level, and funding for local improvement projects must be secured from central government, too. Furthermore, provincial and municipal authorities maintain their own separate appointed executives and elected councils.

In these countries, dedicated national departments are responsible for surveying and establishing the cadastre or land register, whereas local planning departments handle land-use rules and regulations, including delineation and adjustment of building lines, height limits and land coverage ratios, as well as encroachments on public rights of way. In the larger cities, routine, day-to-day, land-related decisions are dealt with by several distinct municipal departments, such as the following:

- issuance of building permits, certificates of occupancy, orders to vacate structurally unsound buildings threatening to collapse, and demolition orders; and
- enforcing rules and regulations, including penalties for non-compliance.

Issues relating to tenure are adjudicated by the courts, which includes competing claims to ownership of land and disagreements among holders of different rights. Non-compliance with development regulations or any land uses posing health or safety threats come under administrative law and can be enforced by local authorities.

Registration of property transfers is a cumbersome and costly process in all countries in the subregion, requiring a notarial act, a formal survey of the property undertaken by



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Chefchaouen, Morocco. **©WitR/Shutterstock**

BOX 2.3: **LAND REGISTRATION IN EGYPT**

In Egypt, formal land registration is a lengthy and cumbersome process involving no fewer than 71 bureaucratic procedures with 31 different offices, which can take six to 14 years to complete.[63] Once equivalent to 12 per cent of property value, the registration fee has been reduced to a flat EGP 2,000 (or US $350). Nevertheless, the registration process remains both complex and costly.[64] As a result, only about eight per cent of urban properties are formally registered.[65] In Cairo, only five per cent of land parcels are registered in the paper-based deeds system.[66]

However, through a combination of the Egyptian Financial Services (EFS) programme, the Real Estate Publicity Department and the Egyptian Survey Authority, the Egyptian government is looking to encourage formal property registration. Since 2004, the Egyptian Financial Services programme, with funding from USAID, has been working with International Land Systems and the Environmental Systems Research Institute (ESRI) to implement a digitized Land Registry System. In May 2006, the government set out a more affordable, reduced-tier fee structure for registration and created the National Urban Registration Project. In July 2006, EFS envisaged converting the personal deeds system into a parcel-based index. This is going to be a very time-consuming and costly process.

As found out in the Cairo district (100,000 parcels) that had been chosen as the initial site for implementation, many of the properties have never been mapped. The Survey Authority had to dispatch field teams to survey every parcel using global positioning systems (GPS).

the specialised department, payment of a registration fee, and filing the notarial bill of sale with the land registry.[61] As a result, property owners, particularly in informal settlements, often do not bother registering their land plots.[62]

Informal Settlements as a Response to Land Market Deficiencies

When considering land and informal settlement issues in Northern Africa, it is important to draw a distinction between two different categories of unplanned urbanisation that are often lumped together and classified as *informal settlements*. The first type consists of parcels bought by limited-income households from legal owners of agricultural land on urban fringes. These land transfers are legal and can be registered. However, in some countries, the parcel cannot be used as a building plot since conversion of agricultural land to urban use is prohibited by law except within designated urban perimeters.

With this type of unplanned urbanisation, unserviced parcels cannot be legally subdivided, and buildings in these informal settlements are therefore encumbered with two instances of non-compliance: (a) illegal subdivision of land and change in use; and (b) unauthorised construction.

This category of informal settlements is currently the target of regularisation programmes. Their typical rectilinear patterns deriving from the original fields or orchards stand in sharp contrast with the organic morphology of squatter settlements, which instead tend to reflect the topography of the sites where they are located.

▲
Cairo, Egypt. **©Andrey Starostin/Shutterstock**

Farmers intending to sell their land to an informal developer often leave the land barren. The land owner will send a request to the survey authority to declare the land as no longer arable. The land can then be sold to developers who proceed to subdivide it and sell the plots for building purposes.[67] The resulting substantial mark-up makes informal developments on agricultural land unaffordable to households with incomes below the 30th percentile and only affordable to those above, who typically fund purchases from remittances from migrant relatives. Municipalities extend services to informal settlements as a function of available financial resources. As densities increase, infrastructure becomes overloaded; lack of sewerage and accumulations of solid waste pose serious health hazards.

The second type of informal urbanisation sees a takeover of public land by unscrupulous developers in collusion with corrupt local officials. This is happening in cities combining acute housing shortages and a scarcity of developable land. Developers proceed to erect apartment buildings and sell the flats to limited- and middle-income families. Sales prices are agreed in advance and cash payments are made in three to four instalments as construction makes progress, effectively pre-financing the project. These blatant violations are concentrated on the outskirts of the larger cities in Northern Africa. Once the settlements have reached a critical mass that makes it difficult for the government to evict residents, the probability of demolition becomes quite low, the settlement is usually regularized and infrastructure is provided.

In Egypt, this phenomenon has received extensive media attention over the past two years as developers have become bolder and the buildings higher and more visible. Recently, governors have been required to take all necessary steps to stem illegal occupancy of publicly-owned land.

The persistence of these two types of informal settlements show how difficult it is for most countries in Northern Africa to provide sufficient serviced land to accommodate demand for new housing against a background of continued rapid urban expansion.

The Political Economy of Urban Land

Although any productive or beneficial uses of urban property are subject to taxation, assessment and collection of property taxes are the responsibility of government departments and only a share of the revenues is redistributed to local authorities. Owner-occupied and rental housing, commercial premises and locales used for workshops and production activities, together with the incomes they generate, are all subject to one form of taxation or another. For all its size and role, the informal economy escapes taxation, which as a result weighs as a disproportionate burden on the formal property/real estate and business sectors. Added to these distortions comes a persistent, strong reluctance

BOX 2.4: **NEW CAIRO CITY AND THE URBAN POOR**

The Greater Cairo Region (GCR) needs at least two million new housing units within the next 10 years if it is to accommodate anticipated population growth and new urban household formations across the metropolitan area. Since the government is in no position to meet this demand on its own, innovative public-private partnerships have come under experimentation. Large parcels of desert land are sold to private developers, and the proceeds enable the public sector to meet infrastructure requirements. As a result, private-sector-led new towns have been mushrooming in the desert areas surrounding the nation's hugely 'primate' capital.

One of these developments is known as 'New Cairo City'. Located just outside the metropolitan ring road and adjacent to Cairo's eastern high-income districts, the new town has evolved through five sequential master plans (1985, 1995, 1999, 2001 and 2007) which all involved radical reviews of objectives, policies, population targets and jurisdictional areas. The initial target (1985) was 750,000 residents over 1,800 ha. New Cairo now aims at 4 million over 33,620 hectares by the year 2027. The initial plan envisaged New Cairo as a satellite town hosting overflows of working-class Cairenes. However, as things now stand, the 25,000 ha of land so far allocated to private developers mainly provides accommodation for high-income and upper middle-class population segments. Small pockets of land have been allocated for relocation of low-income and poor households in self-help residential units.

It is now clear that New Cairo by and large emerges on the back of private sector development policies and decisions. Although public-private partnerships are still in fledgling stages, they seem to leave out the poor, regardless of the socio-economic balance that was the original objective. This situation has not prevented the Egyptian government from trying for more socially balanced new towns in this area, which was somewhat achieved with the relocation of low-income households. Among these were victims of a landslide in one of Cairo's poorest and most densely populated informal areas. Some of the new arrivals have found local employment in the construction industry or as domestic staff, but many complain about lack of jobs. Daily commutes to employment in Cairo are not an option as transport charges would wipe out more than half the typical daily wage. Residents of the poorer enclaves within New Cairo also become stigmatized as those better-off see them as an undesirable reminder of the steep imbalance between rich and poor prevailing in the capital proper.

The main lesson from 'New Cairo' is that for all its benefits, private sector-led real estate and housing development is unable, by itself, to deal with the complex political, social and economic aspects that are involved in any such worthy, large-scale endeavour. More specifically, it is clear that, so far, the new town initiative has done little to bring poor and low-income groups into mainstream urban life. Consequently, it is for the public sector to provide a more balanced socio-economic mix and address socio-geographic polarisation. Aggressive promotion campaigns have made new towns very popular among Cairo's well-off (including expatriate) population, who opt for gated communities with spacious gardens, swimming pools and golf courses instead of an increasingly polluted, noisy and crowded central Cairo, where they commute by private vehicle. In contrast, low-income earners are stranded in the desert, effectively jeopardising or preventing voluntary resettlement in New Cairo.

This is why public-private partnerships should not yet be considered as a new urban governance model or concept in Egypt. Decisions over policy restructuring and new housing have been taken by central government and have not yet been disseminated across local authorities. Participatory engagement of all stakeholders and institutions has so far been absent from decision-making processes.

Whereas the new town concept of privatized housing development and the sale of desert lands to fund public-sector provision of social and basic infrastructures may in principle be a sound and workable approach, and while the Government of Egypt deserves praise for its innovative approaches in the circumstances, there is still room for significant policy adjustments to address the emerging practicalities on the ground.

Sources: The Tale of the Unsettled New Cairo City-Egypt: A Review for the Implications of the Adopted Privatization and Laissez- Fair Policies on Excluding the Poor from its Housing Market, Walid N A Bayoumi, PhD thesis, Manchester University; To Catch Cairo Overflow, 2 Megacities Rise in Sand, M. El-Naggar, www.nytimes.com/2010/08/25/world/africa/25egypt.html

to tax unproductive land and vacant premises, which effectively acts as a disincentive to any kind of development.

Tax yields from the real estate sector are comparatively low relative to market values. This is primarily due to one or more of the following eight factors:

- Complex tenure systems and successive transfers of unregistered titles, resulting in unclear ownership patterns.
- Central government control of high-yield tax bases, including property taxes, which hampers updating of tax rolls.
- A perennial lag in the recording of new tax-producing assets in land registries.
- A redistribution system that is less a function of locally-raised revenues than of non-financial criteria such as population size, social fairness, geographic balance, development potential or national policies.
- Taxation schedules based on real or imputed rental values, rather than the capital value of the assets, a system that tends to understate the market value of real estate assets and their capital appreciation.
- Tenant protection regulations and rent laws that further depress property assessments based on rental valuation, thereby adding to the erosion of municipal tax bases. In Egypt, which features the most stringent rent control laws in the region, rents in the pre-1960 building stock have not increased since roll-backs to 1953 levels were enacted. Today, affluent families living in large five- or six-room apartments pay four to five time less than poor households renting two rooms in an informal settlement.
- Subsidies, tax rebates and exemptions granted to encourage specific categories of development (e.g., affordable housing).
- The exclusion from tax rolls of informal developments on urban fringes, except in Egypt.[68]

Taxation of urban property varies across countries. As of 2008, Egypt would only tax improved lands. Originally, properties in new towns were tax-exempt, but this is no longer the case.[69] Morocco levies two types of urban property tax: the *taxe urbaine* (urban tax) and the *taxe d'édilité* (council tax), both assessed on the rental value of the property. While

▲
Hammamet, Tunisia. **©Brendan Howard/Shuttertock**

the rate of the *taxe urbaine* increases as a function of property value, residents of new units enjoy a five-year tax exemption. The *taxe d'édilité* is a flat 10 per cent levied on occupants of a dwelling to defray the cost of providing urban services. Owner-occupants benefit from a 75 per cent rebate on both taxes.[70] Unlike Morocco and Egypt, Tunisia taxes both occupied and unoccupied urban land parcels.[71] The central government collects property taxes and returns all but 10 per cent of the revenues to municipal authorities. In Sudan, urban property taxes are levied on improvements, not land, which encourages wasteful, low-density sprawl and a pattern of large parcels in affluent, centrally located neighbourhoods.[72]

This review suggests that efficient, rational property taxation systems are urgently needed in North Africa. The same holds with coordination among central and local entities responsible for land management. The multiplicity of laws and regulations governing the use, subdivision and development of land should be harmonized and streamlined. Law 119/2008 in Egypt came as a first attempt to do that. Although some clauses in the executive regulations may need revision, the law remains a significant step towards harmonised, streamlined land legislation.

New Tools for Land Administration and Management

Northern African cities are struggling to balance decentralisation as a prerequisite to participatory processes in urban management, on the one hand, and coordination of urban plans, projects, and investments among national and local authorities, on the other. An overriding concern is the economic competitiveness of cities in a changing global economy.

In this complex endeavour, policymakers are faced with the following three major challenges:

- The high costs and rapid appreciation of land, which keeps families with incomes below the 30th percentile out of formal land markets, and tends to make the informal land market less affordable. Rising land values have led to an increase in density and building heights, often in violation of land use regulations and building codes. As a result, the quality of the urban environment has suffered and both infrastructure and transport systems are overloaded. Collusion among local officials, small developers and contractors encourages weak enforcement of codes and regulations, thereby undermining efforts to manage urban land development.
- Worsening water shortages throughout the subregion, which call for conservation measures. Land development regulations should include requirements for the reuse of treated wastewater, as well as planting and landscaping that are adapted to the prevailing arid climate.
- Rising sea levels as a result of climate change, which are likely to affect settlements in coastal areas and threaten ecologically important areas and bird habitats. Urbanisation of these areas should be prohibited and every effort made to contain the spread of informal settlements on 'at risk' land.

These challenges can be met with a combination of assertive spatial planning, transparency and accountability in land management together with stringent enforcement of development controls. Even more importantly, rapid release of serviced land affordable to limited-income groups is critical to proper living standards in Northern African cities.

Some countries are experimenting with new forms of public-private partnerships to increase the supply of serviced urban land that is affordable to larger segments of the population. In Egypt, the government makes subsidized land available to developers, with off-site infrastructure to build housing that will be affordable to families with incomes below the national median. In Morocco, a share of the land developed by Al Omrane is allocated to the construction of housing for lower- and limited-income families.

2.4
The Geography of Climate Change

UN-HABITAT has identified the cities that are vulnerable to the impacts of climate change; in Northern Africa, these are almost all coastal cities including ***Alexandria***, ***Algiers, Casablanca***, ***Tripoli*** and ***Tunis***. There appears to be a consensus in the international community that sea-level rise is accelerating. From 1961 to 2003, sea-level rise increased by 1.8 mm/year on average, but from 1993 to 2003 the pace accelerated to an average 3.1 mm/year.[73] Forecasts of sea-level rise in the Mediterranean range from 30 cm to over 50 cm by 2100. Although issues like solid waste management, infrastructure and environmental sanitation are among those facing any conurbation, they are particularly relevant to those coastal cities exposed to sea-level rise. These cities can respond to climate-related problems with well-adapted land management policies, preventing unauthorized settlement in high-risk areas and providing for adequate, scientifically-based treatment of structures such as seawalls, breakwaters and marinas that affect coastal currents.

Increased human-made pressure throughout most of the Maghreb has been changing the natural Northern African landscape, most likely increasing the pace of desertification. Access to fresh water (see Table 2.9), a traditionally important issue in Northern Africa, is likely to become even more difficult as agricultural and urban uses continue to compete for limited natural resources, and this situation is compounded by the increasing frequency of intermittent droughts. Demographic growth and economic development have led to overexploitation. In Algeria, Egypt, Libya, Morocco and Tunisia, water availability has already fallen below, or is approaching, 1,000 m^3 per head and per year, the standard benchmark for water scarcity.[74] Egypt and Libya are withdrawing more water annually than is renewed, and both countries are relying on desalination plants to supplement supply (see Box 2.3).

Improved water provision requires watershed management planning, adequate monitoring of groundwater levels and replenishment of aquifers for oases, as well as strict licensing of boreholes. Desalination plants have become more widespread in coastal areas on the back of advances in technologies.

One problem in North Africa is that current national and

BOX 2.5: **THE CHALLENGE OF WATER SECURITY IN NORTH AFRICA**

Northern Africa's water resources are limited. According to hydrologists, countries with less than 1,000m^3 in renewable water resources per head are about to face chronic shortages – and all Northern African countries already find themselves in this situation. As of 2006, Morocco had the largest resources at 886m^3 per year and per head, and Libya had the smallest at 104 m^3. Countries in the region have also experienced protracted droughts and irregular rainfalls.[75]

One of the challenges in North Africa is balancing water resources between agricultural and urban uses. For instance in Egypt, 95 per cent of water supplies are drawn from the Nile and 85 per cent of Nile waters are used for agriculture.[76] Most Northern African countries are experiencing water shortages in urban areas. With the exception of Algeria and Sudan, annual urban water consumption per head increased significantly in the 1990s, as follows:[77] Morocco, from 21.12m^3 per head in 1992 to 41.7 m^3 in 2002; Egypt: from 46.75 m^3 per head in 1997 to 72.71 m^3 in 2002; Libya: from 90.11m^3 per head in 1992 to 109.5 m^3 in 2001; Tunisia: from 30.61 m^3 per head in 1992 to 37.93 m^3 in 2002.[78]

Faced with this challenge, North African countries have deployed three main types of policies:

- *Conservation.* In Tunisia, meters, repairs and leakage reduction are part of an ongoing urban water conservation programme. In a bid to improve meter efficiency and accuracy, the Tunisian government has replaced jammed with resized meters, regulating pressure and tracking leaks, improving worn-out networks with new pipes and equipment to reduce losses.[79]
- *Reuse/recycling.* Morocco encourages wastewater reuse through technical assistance and financial incentives so long as reused water preserves resources against further pollution.[80] Egypt has been recycling wastewater for irrigation and more recently, for watering landscaped open spaces.
- *Desalination.* Tunisia has taken to desalinating brackish water through reverse osmosis in the southern part of the country. Algeria and Libya have been desalinating seawater primarily in the coastal cities. Libya has the greatest desalination capacity at about 1,200 million m^3/day, with Algeria ranking second at just under 1,000 m^3/day.[81] In Egypt , desalination provides water in resorts in the Sinai and along the Red Sea coast.[82]

TABLE 2.9: **FRESHWATER CONSUMPTION AND RENEWAL**

	Annual freshwater withdrawals (billion m^3, year 2000)	Year	Renewable internal freshwater resources (m^3 per head)	Renewable internal freshwater resources (billion m^3)	Water Surplus/(Deficit (billion m^3)
Algeria	6	2007	332	11	5
Egypt	68	2007	24	2	(66)
Libya	4	2007	97	1	(3)
Morocco	13	2007	940	29	16
Sudan	37	2006	78	64	27
Tunisia	3	2007	410	4	1
TOTAL	131		1,881	111	(20)

Source: World Development Indicators, World Bank, 2000, 2006 and 2007

sub-regional fresh water management systems overlook the cross-border nature of aquifers and rarely engage communities in conservation efforts. This is where a participatory approach emphasizing stakeholders' role, including non-governmental organisations, would greatly help. Multinational strategies co-ordinate the use of river basin waters, as in the case with the Nile River (see Chapter 4, Box 4.9).[83] Several initiatives are underway to address these issues, although it is too early to assess their impact. USAID and the Arab Network for Environment and Development (RAED) have formed a strategic partnership to increase regional capacity and enhance awareness in the Middle East and Northern Africa with regard to critical water issues.[84] The European Union is working with the African Union's 'Situation Room' to establish a Continental Early Warning System on climate change.[85]

World Bank initiatives in Northern Africa, both in partnership with the Arab Water Council or bilaterally with governments, focus on rationalizing water consumption. In particular, participating municipalities now take to forecasting future precipitation levels, modernizing irrigation, expanding wastewater collection and treatment, and improving groundwater management and 'water accounting'.[86] They look to curb 'non revenue' water, i.e., systemic losses due to outdated or poorly maintained distribution networks, which can account for over 30 per cent of consumption. On top of these efforts, treatment and reuse of wastewater must increase significantly (see Box 2.6).

Local Authorities and Adaptation to Climate Change

Specific geographic, cultural, economic, and political features will shape any country's adaptation efforts and the readiness, or otherwise, of local populations to change daily routines.[87] Persuading cash-strapped local authorities that they must spend resources on a problem that will only manifest itself over the longer term is just as difficult, especially in view of more pressing economic and social concerns including poverty alleviation, infrastructure deficiencies, housing shortages and inadequate public services, together

▲
Bizerte City, Tunisia. **©Posztos (colorlab.hu)/Shutterstock**

BOX 2.6: **DRINKING WATER IN EGYPT: NEED FOR A MANAGEMENT OVERHAUL**

When the 50,000 residents of Al-Barada, a settlement just north of Cairo, were connected to piped water supply, the women were particularly pleased as this saved them the time and effort of queuing for daily water tanker deliveries. Before long, though, thousands became infected with typhus as the water was polluted. Water tankers are once more a daily reality in Al-Barada.

Indeed, lack of both safe water supplies and sewage treatment are among Egypt's direst problems. Every year, an estimated 17,000 children die from diarrheal dehydration due to unclean water. Although a significant 82 per cent of households in the larger cities are connected to a sewerage network, outside these major settlements the rate is only 24 per cent.

The Al-Barada incident is no exception. The problem here is that well-designed plans are often executed with poor materials by unregulated and corrupt contractors. Groundwater in Al-Barada is polluted by clogged waste water drainage channels which the local population use to dump much of their waste. The Nile itself, the source of 85 per cent of Egypt's water supplies, is seriously polluted as well. An average 550 million m^3 of industrial wastewater is dumped in the river every year, compounded by 2.5 billion m^3 of agricultural wastewater that comes polluted with pesticides and chemical fertilizers. This is not including untreated sewage that flows into the Nile, and for which no data is available. As a result, some 40 per cent of Egypt's population drink polluted water, and the number of kidney diseases in the country is one of the highest in the world.

As mentioned earlier, annual water supply per head in Egypt stands at $860m^3$, well short of the $1,000m^3$ international 'water scarcity' threshold. With the current 80 million population expected to grow 50 per cent to 120 million by 2050, water is going to feature as a prominent political issue throughout the Nile Basin in the years to come. Current treaties and agreements governing water use and rights across the entire Nile Basin are under review in Cairo, but Egypt also needs to amend its own national water consumption patterns. Water wastage is rife in the country, partly due to unsustainably low pricing that does not encourage water conservation. Some 85 per cent of water in Egypt is used in highly inefficient agricultural irrigation systems, and addressing water scarcity should start with the largest consumer. Unless Egypt finds better ways to manage and rationalize water demand and use, peace in North-East Africa may be at stake, as discussed in Chapter 4, Box 4.9.

Source: NRC Handelsblad, Rotterdam, 12-08-2009

with the overriding need for any city today to enhance its competitiveness as a desirable location for private productive investment and attendant job creations.

Furthermore, cities' ability to effectively respond to the anticipated impacts of climate change is constrained by three major types of factor:

1. The conflicting scenarios generated by distinct agencies and experts, which confuse city officials and compound the difficulty of deciding on mitigating action (coming on top of lack of local data regarding most of the foreseeable effects which climate change will have on any specific location).
2. Lack of the financial and technical resources needed to respond to the complex nature of the impacts.
3. Lack of control over any public or private entities that operate outside the jurisdictional boundaries of a locality but whose actions magnify the effects of climate change on that locality.[88] Nonetheless, urban authorities can put themselves in a position to mitigate the potential impacts of climate change, such as through their planning and management functions.

While ***Alexandria*** is considered one of the most vulnerable cities to sea-level rises, the city proper is built on high ground and is only threatened by storm surges. However, urban sprawl and informal urbanisation of villages in the rural hinterland are at risk of flooding if the sea level rises by more than 30 cm. An effective mitigation strategy would be to restrict development in the most flood-prone areas through stringent land management, while at the same time steering developments towards safer areas with the provision of adequate infrastructure.

As for urban sprawl, its detrimental effects are clearly evident in Northern Africa. In Tunisia, net density has decreased from 110 to 90 individuals/ha since 1975 while the population has increased by 4.5 million[89] and nearly doubled in ***Tunis*** over the same period.[90] Although some of this expansion is on safe ground, development in low-lying areas around the salt-water Lake of Tunis and along the coast is exposed to flooding as the sea level rises.

The complex nature of climate change impacts dampens the effectiveness of local responses, which would require both horizontal and vertical coordination among various entities. It is incumbent on municipalities, jointly with relevant government departments, to control urbanisation, tourism and industrial sitings while safeguarding the ecology of coastal areas.[91]

Climate Change and Cities: How Much do we Know?

Research conducted at the University of Paris highlights both a rise in minimum and maximum daily temperatures in ***Sfax***, and a significant lengthening of the hot season in this major Tunisian resort.[92] The thermal rise is attributed to phenomena known as the urban 'heat island' effect, the 'North Atlantic Oscillation' (NAO) and nebulosity increase, with annual maximum temperatures rising by over 2°C between 1970 and 2002 while minimum annual temperatures rose by no more than 1.2°C.[93] The extension of the hot season seems to have been more dramatic between 1970 and 1994, increasing in length from 25 to 35 periods[94], while the cold season shrank from 35 to 13 periods. These trends are expected to continue in the future.

Remote sensing, field observation stations and geographic information systems (GIS) are needed to collect the data required to assess and forecast climate change impacts. Egypt's Nile delta coast is already highly vulnerable to sea-level rise due to flat topology, tectonic subsidence and lack of new

sediment deposits since the construction of the Aswan High Dam, with sea currents adding to vulnerability. The most affected area will be the Egyptian Mediterranean coast from ***Port Said*** to ***Rosetta***. In the two cities, the coastline at the estuary has receded by 3 to 6 kilometres due to the combined effects of beach erosion and scouring.[95]

While the extent of impacts is not precisely known, climate change is bound to throw fresh challenges at Northern African countries. Bilateral and multilateral cooperation is addressing the need for accurate information regarding local impacts. The United Nations University's Institute for Environment and Human Security (UNU-EHS) is building the capacities of central and local agencies to identify high-vulnerability flood zones around the globe as well as potential forced migration flows as a result of climate change, while establishing Early Warning Systems for natural disasters. Regarding North Africa, the World Bank has recently funded research on climate change adaptation and natural disaster preparedness in ***Alexandria***, ***Casablanca*** and ***Tunis***.

Climate Change and Urban Adaptation Strategies

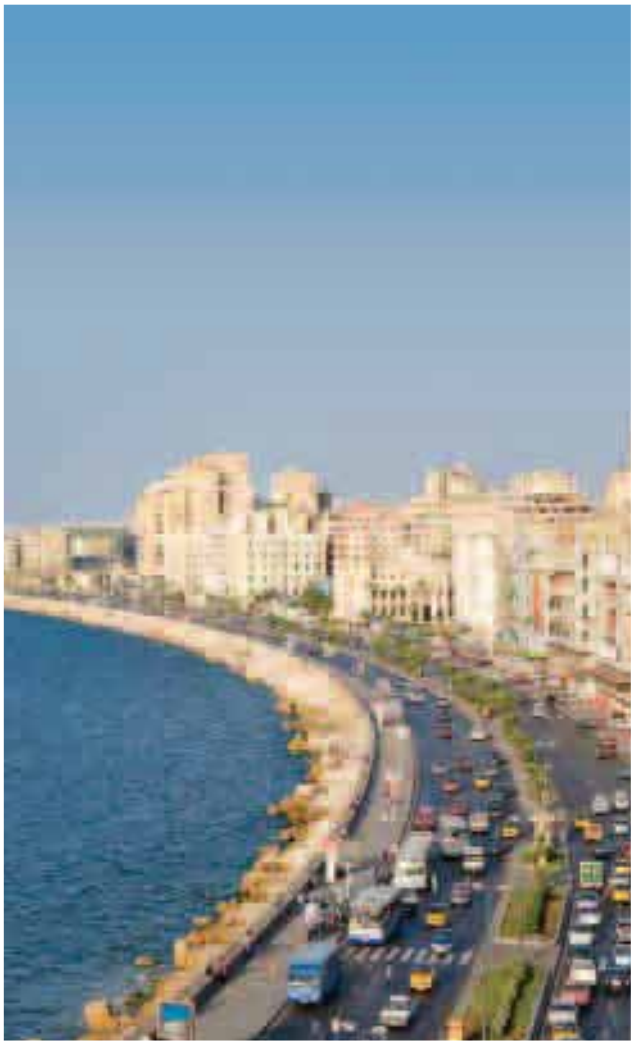
In ongoing environmental research, policy debates are beginning to shift away from trend reversal to adaptation. It is generally agreed that effective action to halt environmental degradation will be slow in coming, because of political reluctance to address the economic and social root causes. Therefore, it is incumbent on all cities, and especially those more vulnerable, to develop practical strategies for adaptation. For example, in ***Algiers***, a city dominated by industrial land uses, inter-agency workshops were held in 2010 on disaster risk assessment, focusing on flash floods and mudflows, the frequent landslides of recent years and the 2003 earthquake.

Egypt is widely viewed as one of the three countries in the world that are most vulnerable to the effects of climate change. Flooding, coastal erosion and salt water intrusion in the Northern Delta will submerge lagoons and lakes and increase soil salinity, with adverse effects on agriculture. Egypt has begun upgrading its geographical information (GIS) database with high-resolution satellite images that can accurately help identify vulnerable areas along the northern coastline, positioning tide gauges to monitor changes in sea levels.[96]

Faced with these challenges, authorities in ***Alexandria*** have begun to take a number of strategic steps. The governor has established a special committee on climate change including experts in marine sciences, water resources, hydraulics, coastal zone management, remote sensing, industry and trade to advise on the impacts of climate change. The governor enjoined the committee to make the best use of available data and start developing mitigation schemes. Longer-term adaptation strategies would be based on new, more accurate data.[97]

Coastal vulnerabilities are compounded by poor land policies and uses, such as the proliferation of recreational resorts with marinas and breakwaters that affect Mediterranean coastal currents and alter natural sand deposits. Immediate concerns include significant beach erosion (up to 50m over 20 years), salt-water intrusion, and rising levels of both groundwater and Lake Mariout (to the south of ***Alexandria***) which flood streets and ground floors along the northern shore. Although climate change is not a factor behind these problems, these will all be compounded by sea-level rise. This prospect highlights the urgent need for adaptation strategies as well as reviews of land policies and uses. Based on recommendations from the climate change committee, the governor of ***Alexandria*** has already decided that submerged structures would reduce scouring and help replenish beaches, and that groundwater affecting historic monuments would be pumped out, as both problems are of some importance to domestic and foreign tourism.

It remains for the governorate to develop a strategy for managed urbanisation in the rural hinterland, where 840 hectares and expanding villages housing 400,000 are at risk of flooding by rising sea levels.[98] The need here is for a long-term plan and a land management strategy to deter further settlement expansion in high-risk areas, while consulting with the national government over any issues of more than local relevance.



▲ Alexandria harbour, Egypt. **©Javarman/Shutterstock**

2.5
Emerging Issues

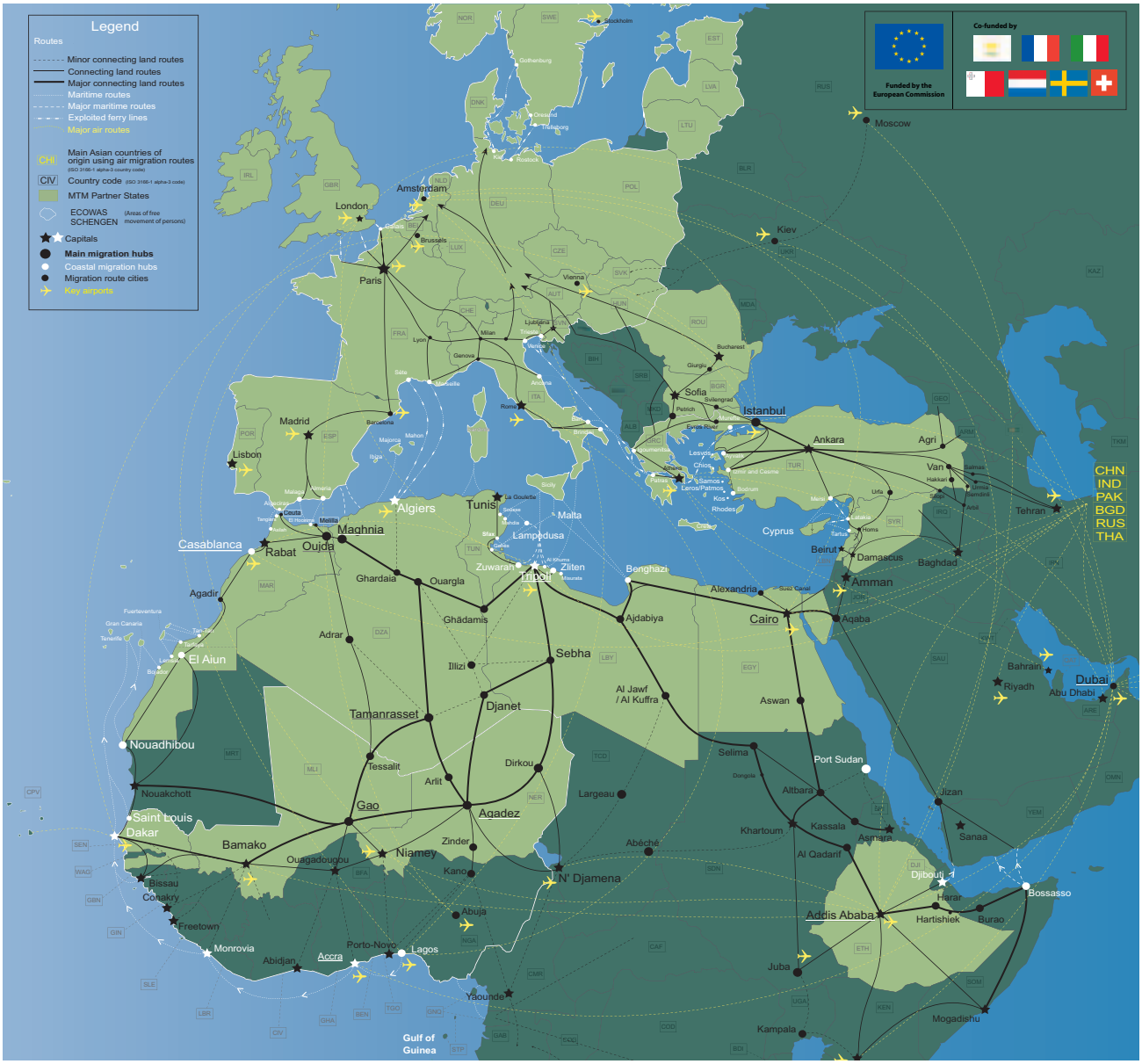
Regional and International Population Mobility, Urban Economies and Livelihoods

Northern African countries are strategically located on the informal migration routes leading from sub-Saharan Africa to Europe. It is estimated that between 65,000 and 120,000 sub-Saharan Africans cross the *Maghreb* countries (Algeria, Libya, Mauritania, Morocco and Tunisia) every year, most on their way to Europe although some stay in Northern Africa. Some 100,000 sub-Saharan Africans now reside in Algeria and Mauritania, one to 1.5 million in Libya, and 2.2 to 4 million (primarily Sudanese) in Egypt. More recently, Northern Africa has also received temporary immigrants from Bangladesh, China, India, Pakistan, and the Philippines, who work in construction, trade, and services.[99]

Those immigrants who do not stay in Northern Africa move on to the northern Mediterranean shores. From the coast of Libya, many emigrants try to reach Malta, Sicily or Lampedusa. In Algeria, migrants from ***Tamanrasset*** in the Sahara travel to northern cities or through to Morocco on the border near ***Oujda***. From coastal areas like Al Hoceima, they try to reach Malaga or Almería in southern Spain. Another major migration pattern is from ***Algiers*** to Sète or Marseille, France. Emigration flows from ***Tan-Tan*** and ***Tarfaya***, Morocco, to the (Spanish) Canary island of Fuerteventura are also apparent. With increased border controls across the Strait of Gibraltar, more migrants tend to leave from Mauritania and south coastal settlements on the perilous boat trip to the Canary Islands.

▲
Marrakesh, Morocco. **©Philip Lange/Shutterstock**

MAP 2.3: **MEDITERRANEAN AND AFRICAN IRREGULAR MIGRATION ROUTES**



Courtesy of International Centre for Migration Policy Development, Europol and Frontex

To the exception of Libya and Sudan, Northern African countries have been experiencing sustained emigration of their working-age populations in search of jobs, primarily in Europe and the Gulf States. Between 2005 and 2010, in Algeria, Egypt, Morocco and Tunisia, the annual net numbers of emigrants ranged between 4,000 and 85,000, compared with net numbers of immigrants between 4,000 and 27,000 in Libya and Sudan.[100] As of 2008, North Africa received US $22.8 billion in remittances from expatriate workers, or about 5 per cent of the world total. However, the 2008 financial crisis has led to a decrease in emigration and a concomitant decline in remittances that has exacerbated the impact on the economy of the downturns in tourism, foreign investment and general business activity. Egypt was the largest receiver of remittances with US $8.68 billion, equivalent to 5.3 per cent of GDP in 2008. Morocco was the second largest receiver with US $6.89 billion, or 8 per cent of GDP. In Libya, recent hostile attitudes and the subsequent deportation of some 145,000 immigrants, primarily to sub-Saharan countries, have temporarily disrupted migration patterns in the region.[101]

In Morocco, many urban youths with relatively high education feel alienated and frustrated.[102] They perceive emigration to Europe as a survival strategy to escape the high rates of unemployment prevailing in urban centres at home which, at just over 35 per cent, are significantly higher than the nationwide 9.5 per cent.[103]

Inter-Regional Cooperation: The Union for the Mediterranean

Established in July 2008 to reinforce and build upon the goals of *peace*, *security* and *stability* set forth by the 1995 Barcelona Declaration, the Union for the Mediterranean (UfM) consists of 43 member states including all EU members and the African and Middle Eastern countries along the Mediterranean shorelines (Libya only has observer status) or the Atlantic Ocean (Mauritania).[104] The Union funds those projects best suited to advance its objectives in the following categories:

- *Renewable solar energy,* including the plans for cross-Mediterranean power lines carrying energy harvested in the Sahara.[105]
- *Transportation improvements,* with upgrading of ports and rail networks. Projects completed to date include sea freight lines between Agadir (Morocco) and Perpignan (France), and between Tunis and Genoa (Italy). The Transport Project is now considering 215 proposed improvements to coastal rail networks and seaports in the Mediterranean, the majority in Northern Africa.[106]
- *Water and sanitation*. The 'Horizon 2020' initiative aims to eradicate pollution in the Mediterranean by the year 2020. Urban areas, with discharges of industrial effluent and municipal waste water and the dumping of solid waste are the source of 80 per cent of the pollution in the Mediterranean.[107] The current objective is to provide waste water treatment for an additional two million people by 2020.[108]
- *Sustainable Urban Development*. The Union's predominantly urban orientation is based on the fact that cities are the major beneficiaries of projects. In anticipation of future cooperation and funding, Northern African cities are now looking to improved links with the European Union. In particular, coastal cities on the northern and southern Mediterranean shores are intensifying exchanges and looking to launch joint initiatives. These trends will be reinforced as UfM develops and leverages funding from the European Investment Bank and other multilateral or bilateral sources. Another Union aim is improved standards for urban housing.
- *Business Support*. The Union promotes trade between member states along the lines set out by the Euro-Med Trade

▲
Agadir, Morocco. **©Ana del Castillo/Shutterstock**

Roadmap, which the Ministers discussed in December 2009. The Roadmap emphasizes free trade and the creation of a favourable investment environment.[109]

- *Civil Protection and Disaster Management*. This includes the anticipated impacts of climate change.
- *Culture*. The Union plans to promote sustainable Mediterranean architecture and safeguard the region's architectural and urban design heritage, but has yet to highlight specific projects. Ministers were to select some early projects in 2010. In the meantime, a new Euro-Med scheme based in Marseille, known as the *Medinas 2020 Initiative*, has launched a programme for the rehabilitation and conservation of Northern Africa's historic urban centres.[110]

Ministers jointly select projects, most of which are supported by multinational rather than bilateral funding; together with Germany's KfW Bank, the European Investment Bank, the African Development Fund and the World Bank have made available over a billion Euros worth of loans for Union-approved projects.

To countries on the northern Mediterranean shores, the rationale behind the Union is to promote economic development and private investment to foster peace in the area and stem emigration to Europe. Countries along the southern Mediterranean shoreline view the scheme both as a channel for foreign direct investment and a potential stepping stone on the way to eventual EU membership.

Transnational Urban Systems

Urban corridors are typically shaped by major transportation routes and anchored by cities. Cities located along development corridors have been growing at faster rates than those in the hinterland. A major challenge is how to link hinterland cities to corridors and attract development to those urban settlements located beyond the impact areas of the corridors.

Two incipient transnational corridors are now consolidating in Northern Africa: the *Southern Mediterranean Coastal Region* and the *Nile Valley Corridor.*

The Southern Mediterranean Coastal Region

The southern Mediterranean coast was a rich agricultural area in ancient times when the climate was less arid and rainfall more substantial, as it still is in Morocco due to the proximity of the Atlantic Ocean. The rich legacy of archaeological sites such as Leptis Magna and Carthage testify to the greatness of the Hellenistic and Roman eras in the region. Whereas

▲
Leptis Magna, Libya. **©Pascal Rateau/Shutterstock**

▲
Cairo, Egypt. **©Joel Carillet/iStockphoto**

Egypt and Libya served as granaries to ancient Rome, the loss of perennial agriculture along the south Mediterranean coast and the shifting of trade routes led to partial decline. However, the coastal region has experienced an impressive revival in more recent times, especially since the 1960s, driven by the development of oil-related industries, manufacturing and tourism.

Tourist resorts started in Tunisia and are now expanding rapidly in Egypt, driven by private real estate development companies. As mentioned earlier, the associated breakwaters or marinas have interfered with coastal currents and marine ecology, on top of restricting public access to beaches. Industrial development has resulted in the expansion of ports and industrial zones, particularly in oil terminals, including the SUMED pipeline from ***Suez*** to ***Alexandria***, ***Al Khums, Benghazi***, ***Tripoli*** and all the way to ***Algiers*** and ***Oran***.

There is little doubt that this incipient coastal corridor is to consolidate over time. The issues that have emerged so far are as follows:

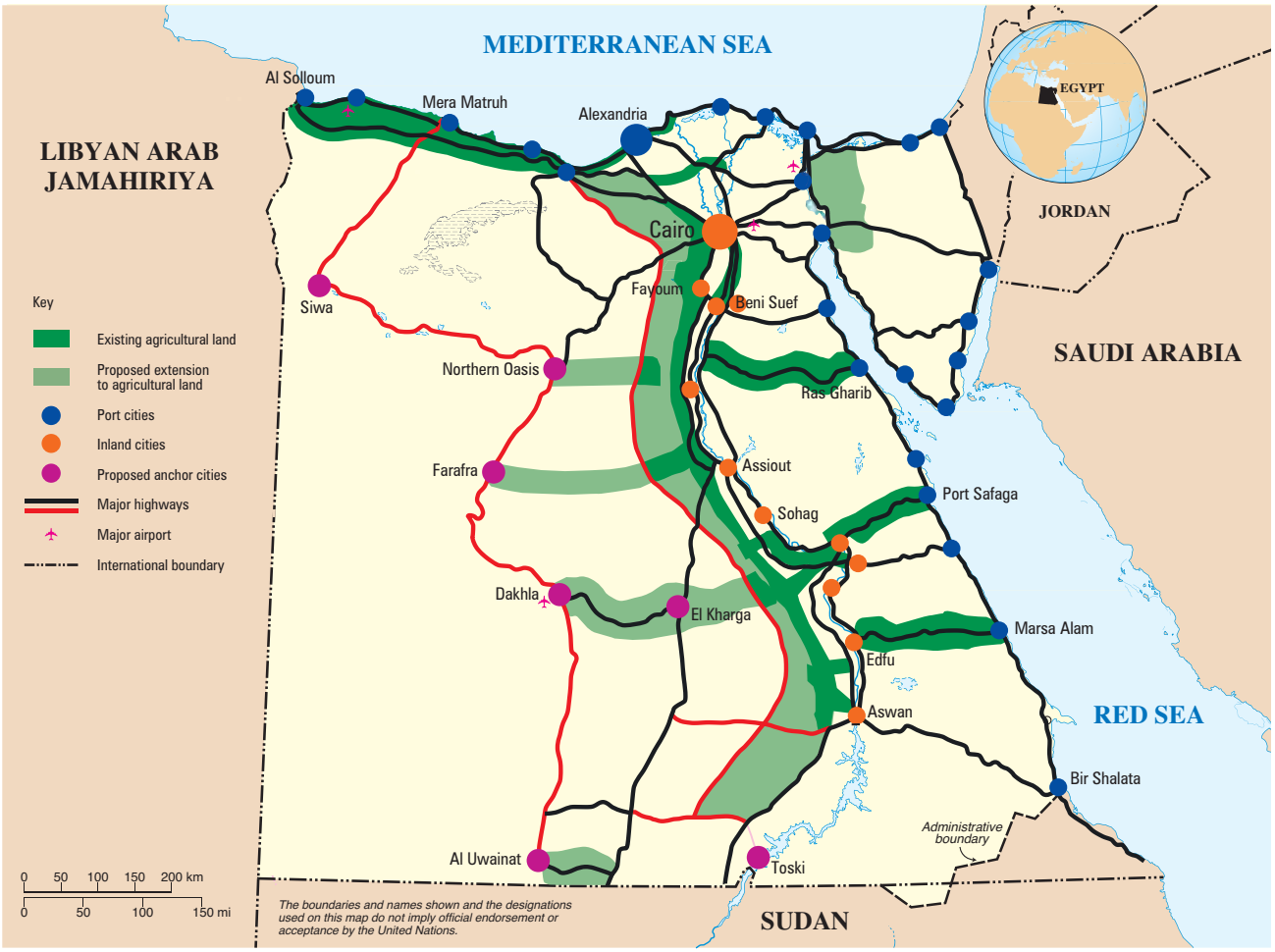
- Mediating conflicts between competing land uses, since tourism and industry do not mix. Noise, fumes and pollution degrade the coastal environment prized by resort developers. In general, priority is given to ports and manufacturing, which generate exports and more jobs. In Egypt and Tunisia, tourism is a major source of foreign exchange and a crucial component of national development plans. The importance of tourism tends to ensure that it is given priority in prime coastal areas, but public access to beaches is a significant concern.
- Industry and tourism have both affected the coastal environment. The corridor badly needs a thorough assessment leading to guidelines and regulations for the protection of marine ecology, including beach flora and fauna. In this respect, national plans can be supplemented by international agreements in the future.

The Nile Valley Corridor

The Nile has traditionally acted as a link and a bond between countries in the watershed (Egypt, Sudan and Ethiopia). Trade patterns and the necessity of sharing water areas with riparian countries have reinforced contacts among cities along the river. The construction of the Aswan High Dam had temporarily interrupted traditional trade patterns as the rising waters spread over Old Nubia, forcing the resettlement of communities on either side of the border between Egypt and Sudan. Today, the level of the reservoir has stabilized and Egypt has begun rebuilding the Nubian villages on the plateau overlooking the lake, with land and housing allocated to those Nubian families displaced in 1964, or their heirs. While this 'New Nubia' stands to re-establish the physical continuity of settlements between Aswan and Khartoum, sustenance in these villages is problematic since most Nubians now work in Egyptian cities or beyond in oil-producing countries or the West.

People along the Nile valley corridor continue to interact as they have done for millennia. In many ways, the major

MAP 2.4: **EGYPT'S NATIONAL URBAN STRATEGY – 2050**



Source: GOPP, Egypt

issue today relates to use of the Nile waters by the settlements stretching along the banks. Riparian states determine their respective shares through international agreements, but the allocation of shares among cities within each country stands out as a priority, particularly in Egypt, together with the associated need for rationalised use of the water.

City Regions

Managing rapid urban growth poses a challenge to all countries in Northern Africa. In Morocco, the three national agencies involved in urban development were merged in 2004 under one holding company, the Al Omrane Group, which is now responsible for all aspects of urban and regional development. This includes the planning and implementation of extensions to existing cities and new towns with a mix of market-rate and social housing. Both projects include a wide range of economic activities and related employment, from industrial parks to handicraft.

In Egypt, the sprawl associated with rapid urban expansion is consuming already scarce agricultural land at an alarming rate, particularly in the delta region. Since 1982, Egypt's national policy has aimed to redirect urban growth onto desert land, with development corridors anchored on existing cities in the Nile Valley and new towns in the desert. Further extensions to these corridors will create new poles in natural or artificial oases. New growth nodes are also to be developed along the Mediterranean coast east and west of ***Alexandria***. In ***Cairo***, where most urban development had taken place illegally on agricultural land, the balance is beginning to shift: between 1995 and 2007 and as noted earlier, 110 km² of desert land were urbanised, while expansion on urban agricultural lands had diminished to 55 km².

Greater ***Cairo*** is the only megacity in Northern Africa and

▲
Cairo, Egypt. **©Bzzuspajk/Shutterstock**

it was also the first city region to develop in this part of the continent. The Greater Cairo Region (GCR) is home to 44 per cent of Egypt's urban population and 22 per cent of the total population. One of the densest cities in the world, Cairo faces the typical challenges of cities in the developing world: traffic congestion, pollution, overcrowded living conditions, limited green space, and high rates of unemployment. Over 40 per cent of the region's urbanised area consists of illegal settlements. The recently adopted ***Cairo 2050*** strategy proposes to enhance the competitiveness of the Egyptian capital and upgrade living conditions to international standards. The six main components of the strategy are as follows:

- De-densify the city centre and accommodate new growth with redistribution of the population to such new peripheral urban areas as the 'October 6' Governorate and the Helwan Governorate.
- Improve accessibility within the region, increasing the number of subway lines to 15 and constructing 14 new highways to link the inner and outer ring roads.
- Upgrade infrastructure and services in informal areas, resettle people living in hazardous areas and relocate polluting industries outside the conurbation.
- Improve governance with clear-cut complementary roles for governorates and district councils.
- Encourage private sector participation in development projects.
- The Greater Cairo plan also proposes to enhance the Egyptian capital's competitiveness with the following projects:
  - Establishing a world-class centre for financial services.
  - Encouraging new firms specializing in export-oriented services, including health, and the development of high-technology products.

- Preservation of historic Islamic, Coptic and Khedivial centres, with associated tourist-oriented development.

The emergence of the ***Cairo*** city region has spawned a challenge for governance. Constituent entities are typically reluctant to be amalgamated into a single metropolitan government area, which can prove unwieldy to manage and too far removed from constituents. In the case of Greater ***Cairo***, the region has been reorganised into five governorates, with two new ones in April 2008.

The Changing Role of Specialised Agencies in Local Planning and Finance

In the early 1980s Northern African countries recognized the need to redeploy their traditionally highly centralised administrative structures and enacted laws to that effect. Nevertheless, more than two decades later and as in many other regions of the world, devolution of responsibilities has not been matched by commensurate financial resources through either transfers or new sources of revenue.

As it stands in North Africa today, the decentralised framework seeks to foster participation and promote efficiency in the use of scarce resources through partnerships between central agencies (which provide finance and technical expertise), local authorities (in charge of implementing projects), and the communities that stand to benefit from the projects. The more positive examples include the following:

- In Tunisia, the government-controlled Urban Rehabilitation and Renovation Agency (ARRU) selects projects, and the National Solidarity Fund (also known as the '26/26 Fund') provides funding for those focusing on improved conditions in low-income urban districts. ARRU's current projects focus on dilapidated districts in the larger cities through partnerships among central and local authorities and the private sector. Municipalities can borrow from the Solidarity Fund to meet the costs of local infrastructure and community facilities, and transfer the borrowed funds to ARRU to undertake the projects. Project costs are split as follows: Solidarity Fund: 65 per cent; Housing Fund: 5.2 per cent; government departments: 1.4 per cent; and the private sector: 2.8 per cent.
- Morocco's Al Omrane regroups under a single holding company the country's land development and urban upgrading agencies, and secures funding for its projects.
- Egypt's General Organization of Physical Planning (GOPP) designs strategic development plans for governorates and cities, and the recently instituted Informal Settlement Development Facility provides funding and technical assistance to local authorities implementing urban improvement projects.

The strengths of specialised agencies lie in their ability to concentrate expertise and attract funding from donors as well as multilateral and bilateral development organizations. This model can be replicated in other countries. Indeed, this type of specialized agency is needed wherever a well-focused long-term intervention is in order, together with a commitment of public sector resources and resort to public powers such as eminent domain.

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