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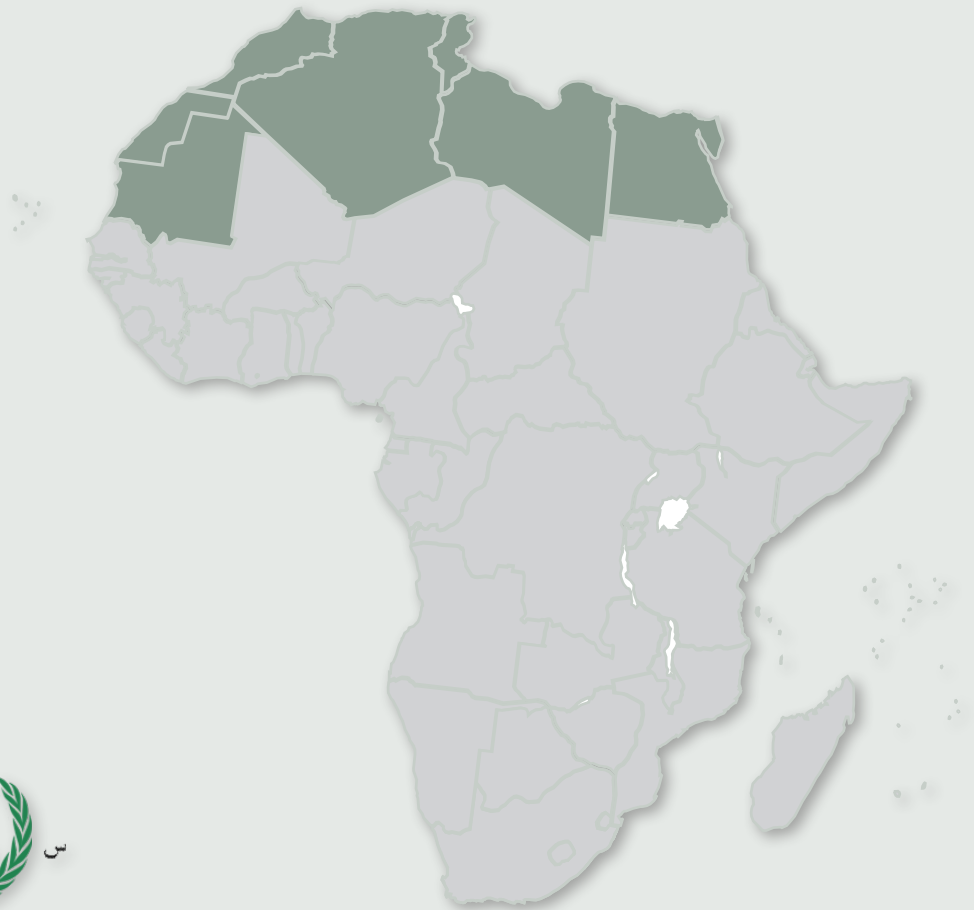
African Development Bank



Economic Commission for Africa

# Land Policy in Africa:

## North Africa Regional Assessment







African Union



African Development  
Bank



Economic Commission  
for Africa

# Land Policy in Africa: North Africa Regional Assessment



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## List of Abbreviations

A21	Agenda 21, an action plan for sustainable development
AfDB	African Development Bank
AGDP	Agricultural Gross Domestic Product
AMU	Arab Maghreb Union
AUC	African Union Commission
ECA	United Nations Economic Commission for Africa
ECHR	Egyptian Center for Housing Rights
EIA	Environmental Impact Assessment
ERSAP	Economic Reform and Structural Adjustment
ERW	Explosive Remnants of War
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign direct investment
GEF	Global Environment Facility
GHF	Global Heritage Fund
GIS	Geographic Information System
GM	Global Mechanism
GMMR	Great Man Made River
GOPP	General Organization for Physical Planning
GPS	Global Positioning System
GTZ	German Technical Cooperation Agency
IDRC	International Development Research Centre
IDSC	Information and Decision-Support Center
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
ISI	Import Substitute Industries
IT	Information Technology
LAS	League of Arab States
MARH	Ministere de L'Agriculture et des Ressources Hydrauliques
MDG	Millenium Development Goal
MENA	Middle East and North Africa
NAGDP	National Agricultural Gross Domestic Product
NAP	National Action Plan
NFP	National Forest Plan
NGOs	Non-Government Organizations

NSS	National Spatial Strategy
OSS	Observatoire du Sahara et du Sahel
PDF-B	Project Development facility, Interim stage
POLiSaRiO	<i>Frente Popular de Liberación de Saguía el Hamra y Río de Oro</i> (Spanish abbreviation Popular Front for the Liberation of Saguia el-Hamra and Río de Oro)
RIOD	Réseau international des ONG sur la Désertification
SADR	Saharawi Arab Democratic Republic
SEA	Strategic Environmental Assessment
SIA	Social Impact Assessment
UAE	United Arab Emirates
UN	United Nations
UNCCD	United Nations Convention on Combating Desertification
UNDP	United Nations Development Programme
UNDP-CO	United Nations Development Programme – Country Office
UN-Habitat	United Nations Programme for Human Settlements
UNIDO	United Nations Industrial Development Organization
UNSO	UN Sudan and Sahel Office
USAID	United States Agency for International Development
WTO	World Trade Organization

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## Executive Summary

The countries in North Africa share an arid and semi-arid environment with high diversity: mountainous areas run alongside maritime areas and desert. The population of the region was estimated at 160 million people in 2005 and is expected to be more than 270 million in 2030. Most of the population will live in urban areas. Currently, urban dwellers in North Africa represent more than 50% of the population and are expected to be more than 60% by 2030. However, the urban system in North Africa is suffering urban primacy.

The region is well known for its endowment in mineral deposits such as oil and gas. However, it is also known for being one of the poorest regions in the world in water resources. Due to rapid population growth, both water and land resources are becoming scarce. Sustainable land and natural resource management is an ancient and well established tradition in the region. This is witnessed for example by the pre-Islamic *hema* system of rangelands management, which governed the timing, frequency and intensity of grazing, and was instrumental in the maintenance of rangelands.

Like other regions in the continent, North Africa has suffered colonial domination: France, Britain and Italy invaded the countries of the region in the 18<sup>th</sup> and 19<sup>th</sup> centuries. The colonial domination led to legal pluralism, with French civil law overlapping with Islamic law and tribal systems. Consequently, land rights are extremely complex and include registered lands, *melk* lands (private lands), *habous* lands (or *waqf*) and pre-Islamic collective tribal lands. One consequence of legal pluralism is poor formalization of land rights and persisting land tenure insecurity and conflicts. The coexistence of traditional, religious, and civil legislation is considered as one of the main causes of land disputes in the region.

The trend of land fragmentation is common in the region. Land fragmentation is the result of continuous sub-division of land for inheritance. Finding the appropriate response to land fragmentation is a key challenge for North African countries, as it is considered an impediment to land development and agricultural productivity.

Islamic law enables women to own land through inheritance. Governments in the region have taken appropriate measures to enhance women land rights. However, the survival of customary practices hampers the consolidation of women's land rights.

North Africa has experienced numerous conflicts such as the North African Campaign of World War II, the Egyptian–Israeli war and border conflicts between countries in the region. As a consequence, land mines and explosive remnants of war are a common hurdle for development in the region. Specifically, explosive remnants of war are obstacles to land development. They have delayed irrigation projects in some instances and significantly increased the cost of agricultural projects in others.

Land is central to overall national development in the region. Agriculture, industry (including manufacturing and oil extraction) and the booming tourism industry are activities which require access to land resources and security of tenure. From 1950 to 1975, different policies were developed to address key land issues in North Africa. Generally, land policies were developed as part of national development plans. This trend of land reforms was based on state interventionism and included: expropriation of former colonial lands; land redistribution in favour of poor landless peasants; and establishment of ceilings on maximum land ownership. These reforms substantially improved access to European markets and thus contributed to poverty reduction. However, not all expropriated land was redistributed to poor peasants. The state ended up becoming the largest land owner, with state farms established across the region.

In the mid-1980s, most North African countries moved from planned economy and state capitalism toward neo-liberal economies. New laws were passed to enable the private sector access land resources and to attract foreign direct investments. However, governments failed to harmonize the laws passed under the rule of planned economy with the new ones, designed to promote a free market. The coexistence of those two types of laws proved not to be conducive to economic development. In addition, most North African countries remained centralized while the full implementation of the new land laws required devolution of power to the local administration.

Most countries in North Africa successfully experienced consultative mechanisms in the course of formulating their plans and programmes for com-

bating desertification. This successful experience is a lesson learnt which can feed future land policy development processes in the region.

# I. Introduction

1.1 Land is central to sustainable development. Land resources are used for a variety of purposes which interact and may compete with one another. Land policies are those related to land acquisition, distribution, development and conservation. It is desirable to plan and manage all land uses in an integrated manner. Proper planning and management of land resources have positive impacts on national development, where they assist in achieving overall sustainable development of the country.

1.2 This report is the Regional Assessment of Land Policy Formulation and Implementation in North Africa Region. This region comprises the following seven countries: Algeria, Egypt, Libya, Mauritania, Morocco, Saharawi Arab Democratic Republic (SADR) and Tunisia.<sup>1</sup> Each North African country has its own agenda for development where land is at its heart. This regional assessment will contribute to national initiatives in North Africa by offering the opportunity to share various experiences and lessons.

1.3 The African Union Commission (AUC), the United Nations Economic Commission for Africa (ECA) and the African Development Bank (AfDB) commissioned this assessment under the overall leadership of AUC. The assessment aims to: enrich the proposed Framework and Guidelines for Land Policy and Land Reforms in Africa; and identify challenges, lessons and institutional gaps for an agenda for capacity building and development.

This report serves as the basis for discussion during the regional consultative workshop for North Africa. It attempts to bring the regional specificities of North Africa to the continental framework.

1.4 Following this introduction, the report presents the context of North Africa (Section 2); then key issues related to land uses and availability (Section 3) including population, agriculture, urbanization etc. The fourth

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<sup>1</sup> SADR is included in the study based on the AUC agreement. According to the UN, it is one of the world's last remaining major non-self-governing territories. Morocco controls most of the territory. For this reason, unless not mentioned specifically in this report, much of the information for Morocco derived from international sources, such as the World Bank covers SADR (Wikipedia, the free encyclopedia, [http://en.wikipedia.org/wiki/Sahrawi#Background\\_information\\_on\\_the\\_Western\\_Sahara\\_conflict](http://en.wikipedia.org/wiki/Sahrawi#Background_information_on_the_Western_Sahara_conflict) accessed 18 February 2008).

section of the report is about land policy followed by land administration (Section 5). Lessons and best practices, and a needs assessment (Sections 6 and 7) conclude the report.



## II. Context of North Africa

2.1 The environment in the North Africa region is arid and semi-arid. It is one of the most diverse regions in the world. The vertical and the horizontal variations reveal wide biological diversity. The marine components in the region, which also reflect great variety, focus on the Mediterranean Sea, the Atlantic Ocean and the Red Sea. The high diversity in flora and fauna reflects the variation in ecosystems across North Africa.

2.2 One of the attributes of North Africa is the rugged terrain. There are mountainous areas in north Algeria, Morocco and Tunisia. The south-eastern corner of Algeria is another distinct mountainous area. The highlands in Egypt are in the Sinai Peninsula and the coastal areas of the Red Sea that extend from Egypt into the Sudan.

2.3 The desert is a main feature of North African countries. The western desert extends from the western bank of the Nile into Libya all the way to southern Morocco. The River Nile is the most important source of fresh water in Egypt.<sup>2</sup> Groundwater and rain are other sources of water in the region.

2.4 The population of North Africa was estimated at 159.7 million in 2005. It is projected to reach 271.3 million by 2030 (Abdelrehim et al., 2005).

2.5 North African countries have a long history of culture and civilization. Their natural assets and cultural heritage form the basis for tourism. Conserving cultural heritage and historical monuments, through policies and plans for land use and management, can generate jobs and economic benefits for the countries in the region and the local communities.<sup>3</sup>

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2 The length of the river is 6,650 km (4,132 miles). Nile basin countries are: Burundi, Democratic Republic of the Congo, Egypt, Ethiopia, Kenya, the Sudan, Tanzania and Uganda.

3 The Global Heritage Fund (GHF) estimates that in the next four years there will be a need for hundreds of contract employees to implement infrastructure and conservation projects at Cyrene. These jobs will not be concentrated in Tripoli, but will have an impact in the underdeveloped north-east of Libya. Longer term, thousands of tourism-related jobs are expected to be created, along with many new opportunities for the Libyan business community ([http://www.globalheritagefund.org/where/cyrene\\_scroller.html](http://www.globalheritagefund.org/where/cyrene_scroller.html) accessed 17 January 2008).

2.6 North Africa is disproportionately endowed with natural resources. It is among the richest areas of the world in mineral deposits, such as iron and phosphate, and oil and natural gas reserves, and one of the poorest in renewable water resources. Many North African countries continue to rely excessively on natural resources for their development.

2.7 Land and water are the main productive factors in the region. With the increasing population, these two resources are increasingly becoming scarce:

- In Morocco, total agricultural land is estimated to be about 9 million ha over a total area of 71 million ha (13 per cent). Irrigated areas cover 1.3 million ha (El-Gueddari, 2004).
- In Algeria there is potential for 2.2 million ha of arable land of which only 350 to 400 thousand ha are currently irrigated (less than 5 per cent of total agricultural land) and 1 million ha are planned in the 2020 horizon (Benmouffok, 2004).
- Tunisia plans to have 460 thousand ha of land irrigated by 2010. Currently, there are 368 thousand ha irrigated (Al Atiri, 2004).
- The total area of Libya is estimated at 1,760,000 km<sup>2</sup>. The area suitable for cultivation is approximately 22,000 km<sup>2</sup> of which 2,390 km<sup>2</sup> are dedicated to irrigated agriculture, 15,500 km<sup>2</sup> to rainfed farming, and 140,000 km<sup>2</sup> to forest and rangeland.<sup>4</sup>
- In Mauritania, during the late 1980s and the 1990s, arable land was scarce, and, except for some oases, crop production was limited to a narrow band along the southern borders with Senegal and Mali. Farmers practised four types of agriculture: rainfed dry land cropping, called *dieri*; flood recession cropping along the Senegal River and its seasonal tributaries, called *oualo*; modern irrigated agriculture; and oasis cultivation, the least important (Handloff, 1988).

2.8 The North Africa region has several long-standing environmental issues which only differ by magnitude and severity between countries: water scarcity and quality; land and coastal degradation and desertification; urban and industrial pollution; and weak institutional and legal frameworks.

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<sup>4</sup> Wikipedia, the free encyclopedia, Agriculture in Libya ([http://en.wikipedia.org/wiki/Agriculture\\_in\\_Libya](http://en.wikipedia.org/wiki/Agriculture_in_Libya), accessed 17 February 2008).

2.9 Countries in the region also have to face the environmental dimension of their own economic liberalization efforts, free trade agreements with the European Union, and general globalization (Abdelrehim, et al., 2005).

2.10 In addition to land scarcity, desertification and drought are major threats to the region. Desertification is a manifestation of land degradation and fertility losses. Mauritania (90 per cent desert) suffered from drought during the 1980s and 1990s that resulted in considerable losses of forests and vegetation cover throughout the country (Dia M., 1995). In Tunisia, of the 4.8 million ha of arable land, 3 million ha are susceptible to and threatened by degradation.<sup>5</sup>

2.11 In addition to common natural attributes, countries in the North Africa region share common legal and institutional frameworks. Algeria, Egypt and Tunisia base their legal systems on Islamic laws (*Shariya*)<sup>6</sup> and French Civil Law.<sup>7</sup> Libya, Morocco and Mauritania base their legal systems on religious law. These legal systems result in common problems and provide opportunity for experience sharing in land policy development and implementation.

2.12 The North African countries are members of international and regional organizations, such as UN, the World Trade Organization (WTO), the League of Arab States (LAS), the Arab Maghreb Union (AMU), the Arab Free Trade Union etc. These organizations can support collective regional work towards sustainable land uses.

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5 Ministère de l'Agriculture et des Ressources Hydrauliques (MARH)/Food and Agriculture Organization of the United Nations (FAO).

6 Religious law refers to the notion of a religious system or document being used as a legal source, though the methodology used varies. The Islamic Shariya law (and Fiqh jurisprudence) is based on legal precedent and reasoning by analogy (Qiyas), and is thus considered a precursor to common law (Wikipedia, the free encyclopedia, Legal Systems of the World). [http://en.wikipedia.org/wiki/Legal\\_systems\\_of\\_the\\_world#Religious\\_law](http://en.wikipedia.org/wiki/Legal_systems_of_the_world#Religious_law) accessed on 18 February 2008).

7 Civil law is the most widespread system of law in the world. It is also known as European continental law. The central source of law that is recognized as authoritative is codification in a constitution or statute passed by legislature, to amend a code. Civil law systems mainly derive from the Roman Empire (Wikipedia, the free encyclopedia, Legal Systems of the World). [http://en.wikipedia.org/wiki/Legal\\_systems\\_of\\_the\\_world#Religious\\_law](http://en.wikipedia.org/wiki/Legal_systems_of_the_world#Religious_law) accessed on 18 February 2008).

## III. Key Issues and Challenges in North Africa

### A. Population

3.1 The population of North Africa is growing, in part, because of improved health services and the resultant decline in mortality rates. Meanwhile, birth rates are considerably high, as a result of high total fertility rates and high population momentum. The population of the region increased from 46.9 million in 1950 to 159.7 million in 2005, and will grow to about 271.3 million by 2030 (Abdelrehim et al., 2005).

3.2 The population of North Africa is young. In 2005, those under 15 years old represented about 32.67 per cent of the total population, and will represent approximately 28.74 per cent by 2020.

3.3 Since land and water are scarce, population growth is among the pressures on these two resources requiring careful planning and management of the resources for sustainable use.

3.4 Almost all governments of the region have put in place schemes for efficient use of land and water to secure food for the growing population. The challenge that North African countries face is the sustainable use of these two resources in order to generate job opportunities, provide social services (such as education and health), and physical infrastructure, such as safe drinking water and wastewater collection and treatment schemes.

### B. Land Management and Policies

3.5 Since independence in the 1950s and 1960s, land policy formulation and implementation processes have been evolving in North Africa in line with institutional transformations. Some countries in the region have nationalized colonial lands (Algeria, Mauritania, Morocco and Tunisia), while others have set a limit on property ownership and redistributed excess land among the landless agricultural labour (Egypt and Libya). The

aim was twofold: to establish state capitalism; and to eliminate the political power of large landlords.

3.6 Land property rights in the region are very similar and are the result of common factors such as geography (common agro-climatic conditions), common history (colonization/occupation) and religion (i.e. Islam as the common religion):

- The land rights are multiple and complex. They are inherited from pre-Islamic (called *Orf*) and Islamic (*Shariya*) rules as well as colonial and post-colonial legislation. All these rules continue to coexist.
- All the countries in the region have the same land systems although their names may differ: *melk* lands (private ownership), collective lands and *habous* land (also known as *waqf*).
- All countries have experienced dualism of land systems: rural vs. urban lands, colonial land regime vs. indigenous land regime.

3.7 The region has extended experience in formulating land policies and in land management. Until 1855 only about one seventh of Egypt's cultivated land was under private ownership. The government owned the remaining land and distributed it periodically among farmers. Each village was collectively responsible for taxes and debts. From 1855 to 1858, new laws were passed to introduce the principles of private property and Muslim inheritance to Egyptian rural areas. By 1896, the bulk of Egyptian agricultural land was privately owned (Waterbury, 1978).

3.8 The Libyan Government has been concerned with land reform since 1969. Shortly after the Al Fateh revolution (September 1969), the government confiscated all Italian-owned farms (about 38,000 ha) and redistributed much of this land in smaller plots to Libyans. The state retained some of the confiscated lands for state farming ventures, but generally has not sought to eliminate the private sector from agriculture. It did, however, take a further step in 1971 of declaring all uncultivated land to be state property. Another law passed in 1977 placed further restrictions on tribal systems of land ownership, emphasizing actual use of land as the decisive factor in consolidating ownership. Since 1977 an individual family has been allotted only enough land to satisfy its own requirements; this policy was designed to prevent the development of large-scale private sector farms and to end

the practice of using fertile “tribal” lands for grazing rather than cultivation (Metz, 2008).

3.9 Further discussion on other North African experiences is presented in Section 4.

### C. Farm Size and Land Distribution

3.10 “Farms in MENA [Middle East and North Africa] region tend to be small and fragmented. A problem common throughout the region, such dispersed farming has for decades prevented economies of scale in production, inputs, and marketing, raising the cost of production and keeping agriculture relatively inefficient (Kurizig, 1999).” Land fragmentation is an impediment to agricultural development in almost all the North African countries. In Tunisia, the analysis of farm size and land distribution shows two trends: the number of farms has increased between 1994 and 2004 (516 thousand units in 2004 against 471 thousands units during 1994); and despite a decline in the agricultural area (5,271 million ha in 2004 against 5,295 million ha in 1994), the number of farmers has increased by 9.5 per cent. As a consequence the average farm size has decreased by 9 per cent (Table 1).

**Table 1. Evolution of the number of farms in Tunisia**

Designation	1961–1962	1994–1995	2004–2005	Evolution 2004/1994 (per cent)
Number of farms (×1000)	326	471	516	9.5
Total agricultural area (×1000 ha)	5,206	5,295	5,271	-0.5
Average farm size (ha)	16	11.2	10.2	-9.0
Agricultural area per capita (ha)	1.2	0.6	0.5	-16.6

Source: Enquête sur les structures des exploitations agricoles (2004–2005).

3.11 These trends are a result of land reform programmes in collective and *habous* lands (40 thousand farmers) and state lands (300 thousand ha distributed among 30 thousand farmers) as well as of the division of farms among heirs. The trend of land fragmentation and increased number

of farms is common in the region whereas in more developed countries this phenomenon is well managed to conserve optimal size of agricultural land.

3.12 In Tunisia, the 2004 survey (Enquête sur les structures des exploitations agricoles, 2004–2005) shows that 54 per cent of farms are smaller than 5 ha, yet this category possesses only 11 per cent of total agricultural land. Farms smaller than 10 ha represent 75 per cent of the land stretched over 25 per cent of total area. Finally, farms exceeding 50 ha represent only 3 per cent of the total but hold 34 per cent the total agricultural area.

3.13 The number of small farms has increased sharply since the survey in 1962 (from 133 thousand in 1962 to 251 thousand in 1994, and to 281 thousand in 2004) as a result of the above mentioned reasons (see Table 2). Another important feature of land division is the increased number of parcels. The average number of parcels per farm is two but in 1995 survey more than 100 thousand farmers have more than 5 parcels (see Gharbi, 2002).

**Table 2. Evolution and pattern of landholding in Tunisia (in thousands)**

Class (ha)	1961–1962		1994–1995		2004–2005	
	Number	Per cent	Number	Per cent	Number	Per cent
0–5	133	41	251	53	281	54
5–10	73	22	92	20	109	21
10–50	106	32	114	24	112	22
50–100	9	3	10	2	10	2
100+	5	2	4	1	4	1
Total	326	100	471	100	516	100

Source: Enquête sur les structures des exploitations agricoles (2004–2005).

Landholding in Morocco shows similar distribution and features to those of Tunisia (Table 3). The cumulated number of small farms (below 10 ha) is 87 per cent on only 24 per cent of total area. The problem of small size is the result of the rigidity of current land system in Morocco. The small size is compared to the definition of a viable farm size as defined by the *Code d'investissement agricole* in 1969 (5 ha in irrigated areas and 20 ha in rainfed agriculture).<sup>8</sup> The stagnation of farm size is due mainly to the *melk* (private)

<sup>8</sup> Compared to Morocco, in Mauritania, the viable size in irrigated areas rarely exceeds 1 ha (see Boud-erbala, 1999).

system which is dominant at 75 per cent of the area but also to the stagnation of the land market.

**Table 3. Pattern of landholding in Morocco (1996)**

Class (ha)	Number of farms (1000)	Area (1000 ha)	Number of farms (per cent)	Area (per cent)	Cumulated number (per cent)	Cumulated area (per cent)
0-1	315.3	170.4	22.0	2.0	22.0	2.0
1-3	446.7	904.7	31.2	10.4	53.2	12.3
3-5	237.7	1,011.1	16.6	11.6	69.8	23.9
5-10	247.8	1,894.7	17.3	21.0	87.1	45.6
10-20	125.2	1,880.5	8.7	21.5	95.9	67.1
20-50	48.0	1,526.3	3.4	17.5	99.2	84.6
50-100	7.8	585.2	0.5	6.7	99.8	91.3
100+	3.2	759.4	0.2	8.7	100.0	100.0
Total	1,431.7	8,732.2	100.0	100.0		

3.14 Algeria also has a similar situation of land distribution. Of the total number of farms in the private domain, 88 per cent (4.7 million ha) are below 10 ha and represent 46 per cent of the total arable land (Table 4). In the self-managed domain (state lands: 2.8 million ha) the situation is different. A total of 70 per cent of the farms in the self-management domain have an area of 5,000 ha and more. This duality in the structure of agriculture also has implications on modernization efforts. Only 3.5 million ha in the self-managed domain and the large private farms have taken advantage of the diverse modernization programmes.

**Table 4. Landholding in the private sector in Algeria (1985)**

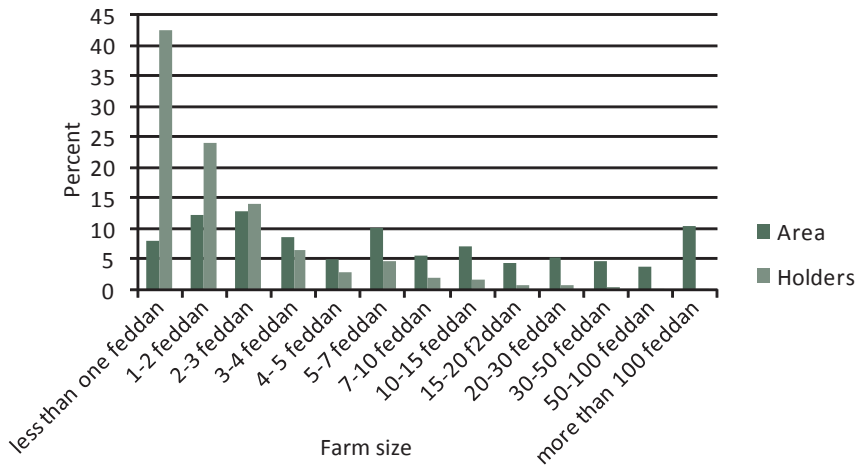
Class (ha)	No. of farms (×1000)	per cent	Area (×1000 ha)	per cent	Average size (ha)
Less than 5	670.0	74.0	1103	26.5	1.7
5-10	124.0	14.0	835	20.0	6.9
10-20	68.0	7.4	889	21.0	13.7
20-500	35.0	4.0	907	22.0	27.1
50-100	5.3	0.6	326	8.0	63.4
+ 100	0.7	0.1	100	2.5	151.0
Total	903	100	4160	100	

Source: Jouve (1999).



- Conditions in the Egyptian countryside are not different from those in the other countries. Results in Figure 1 show that 45 per cent of the farmers who have less than 1 *feddan* (Ministry of Agriculture and Land Reclamation, 2000)<sup>9</sup> hold less than 10 per cent of the total agricultural land. The Information and Decision-Support Center (IDSC), Cabinet of Ministers, Egypt, confirms these findings. According to IDSC, those who hold less than 1 *feddan* are about 43 per cent of the landholders in Egypt; those who hold more than 1 *feddan* and less than 5 *feddan*, and those who hold more than 5 *feddan* are 47 and 10 per cent of the landholders respectively. Information in Figure 2<sup>10</sup> shows that most farmers hold one parcel of land. This is probably the outcome of an almost fixed supply of agricultural land versus population growth, and continuous sub-division of land for inheritance. This situation inhibits the possibility of returns from economies of scale, and thus the persistence of poverty in rural areas.

**Figure 1. Egypt, agricultural land stratified by holders and farm size, 2000.**

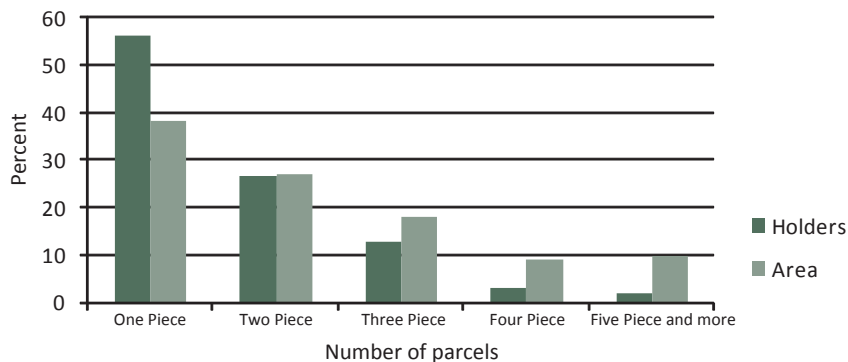


Source: Based on Ministry of Agriculture and Land Reclamation (2000).

<sup>9</sup> One *feddan* is about 4,200.83 m<sup>2</sup>.

<sup>10</sup>

**Figure 2. Egypt, agricultural land stratified by holders and number of parcels, 2000.**



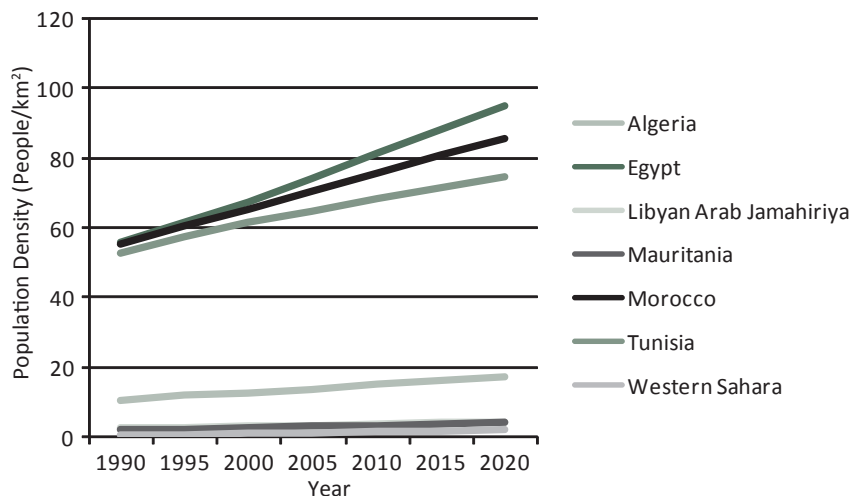
Source: Based on Ministry of Agriculture and Land Reclamation (2000).

## D. Urbanization

### 1. Urban Growth

3.15 Population densities (persons per unit of land) in North Africa are projected to increase, particularly in Egypt, Morocco and Tunisia (Figure 3).

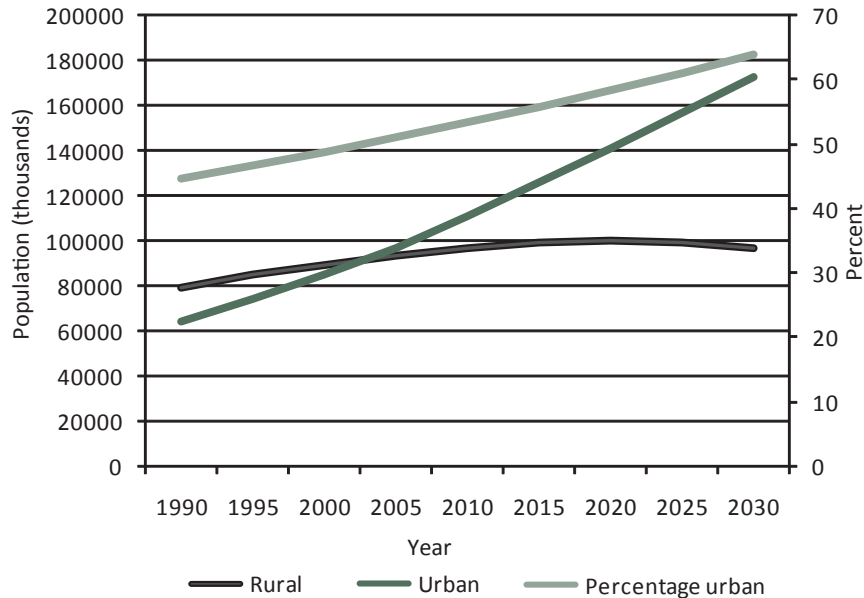
**Figure 3. Population density, 1990–2020, people per km<sup>2</sup>.**



Source: EarthTrends, The Environmental Information Portal, World Resources Institute (WRI), Washington, DC. [http://earthtrends.wri.org/searchable\\_db/index.php?theme=4](http://earthtrends.wri.org/searchable_db/index.php?theme=4) (accessed in 17 January 2008).

3.16 North Africa is on its way to being the location of major urban megalopolises. Currently, the urban population in the region represents 51 to 53 per cent of the total population; this figure is projected to be more than 60 per cent by 2030. The rural population in North Africa is declining and urban population is growing (Figure 4).

**Figure 4. Urban and rural population, 1990–2030.**



Source: World Population Prospects: The 2004 and 2005 Revision population database.

## 2. Urban Primacy

3.17 Most of the population growth will be in the existing human settlements (see Annex 3). This requires meticulous planning and management of land use to control the expansion of these settlements. If not properly managed, these developments could easily result in informal settlements in the form of slums within city quarters, and squatter settlements on its hinterlands, with all the social ills, economic losses and environmental costs associated with these types of settlements.

3.18 Almost all nationally defined urban systems in North Africa suffer from urban primacy.<sup>11</sup> According to theories of regional studies and geography, the existence of a primate city, usually the capital city or major port, negatively affects the distribution of resources and investments. Often, urban primacy and regional disparities are associated with social ills and economic problems, such as unemployment, poverty and excessive influx of rural–urban migrants, including denying marginalized sub-populations access to power and wealth (Abu-Lughod and Hay Jr., 1977).

3.19 In 2005, Cairo (a city of more than 11 million inhabitants) dominated the urban system of both Egypt and North Africa. The second tier of cities (six to three million inhabitants) includes Algiers, Alexandria, Casablanca and Rabat, while the third tier (three to one million inhabitants or fewer) includes Marrakesh, Oran, Suez and others (Annex 4).

### **3. Informal Urban Sector**

3.20 The growth of the informal urban sector in various social and economic contexts over the last 20 years is an attribute of societies of the region. One of the imperatives of globalization is the spatial transformation of production and changes in patterns of consumption. Horizontal networking is becoming the most efficient mode of organizing production of commodities and services. Today, sub-contracting and outsourcing is the norm. The informal economy is expanding due, in part, to its flexibility and productivity. This leads to greater demand for land to accommodate productive establishments in metropolitan areas.

3.21 In North African cities, the often poor, marginalized population engages in informal economic activities. Informal economic processes cut across the whole social structure. The requirements of profitability are the hidden forces that link formal and informal sectors. Informal urban economy is a specific economic system of income generation. Its activities are unregulated both legally and socially by the institutions of the society. The framework that governs formal–informal relations is dynamic and reflects transformations of institutional boundaries in terms of regulations (Rady, 2003).

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<sup>11</sup> Urban primacy refers to when the urban population is not evenly distributed among the cities that constitute the national urban system.

3.22 The coexistence of both informal and formal urban sectors, i.e. economic duality, is evident within major metropolitan areas such as the Greater Cairo Region where the difference between the formal Mohandseen and Doqqi districts and informal settlements al-Monera al-Gharbiya and Boulaq el-Dakrouir is the Sudan Road and the railway to Upper Egypt (El-Kholei, 2001).

3.23 Informal settlements develop and expand as a result of several reasons. These include inequitable distribution of wealth, inadequate urban management and successive influx of rural migrants (El-Kholei, 2005). The population of slum areas in mid-2001 for selected North African countries is shown in Table 5.

**Table 5. Population of slum areas at mid-year, 2001, for selected North African countries**

Country	Total population ('000)	Urban population ('000)	Rural population ('000)	Per cent urban	Per cent slum	Slum population
Egypt	69,080	29,475	39,605	42.7	39.9	11,762
Libya	5,408	4,757	651	88.0	35.2	1,674
Morocco	30,430	17,082	13,348	56.1	32.7	5,579

Source: UNHABITAT, Statistics, web site <http://www.unhabitat.org/programmes/guo/statistics.asp> (accessed March 2004).

#### 4. Peri-Urban Agriculture

3.24 In most countries of North Africa, peri-urban agriculture plays an important role in providing agricultural commodities for the cities.<sup>12</sup> Although legislation to control urbanization exists, the tragedy of peri-urban agriculture continues. Rent-seeking activities are increasingly leading to further degradation of this fertile land. Since the 1980s urban growth has been threatening agriculture in peri-urban areas.

3.25 Peri-urban agriculture is subject to growing population pressure and competition over land resources. Encroachment of human settlements on agricultural land is a result of increased demand for land by urban users. The ring road around the Greater Cairo Region has destroyed about 3

<sup>12</sup> In Tunisia, the Medjerda Valley, in the neighbourhood of the capital, is among the most fertile and productive lands in the country. The first experience of development of irrigation on public lands took place in this Valley. In Algeria, the Mitidja is a vital public irrigated domain located around the capital.

thousand *feddan* (Capacity 21 Unit, 2001), and is currently transforming agricultural land into informal areas in Giza and villages of Qalub.<sup>13</sup>

## **E. Land Tenure and Security**

3.26 Land tenure and security is essential for efficient and effective land market mechanisms. Without secure property rights the economy lacks the necessary capital, increasing environmental losses.

3.27 De Sotro (1997) estimates the unregistered informal holdings in urban Egypt to be worth about \$US241 billion, where 70 per cent of these frozen assets are in the hands of the poor. The steps to register a property in the name of an owner are about 217 which take 14 years to achieve (de Sotro, 1997). To clarify the situation, de Sotro argues that informal real estate in Egypt is 6 times greater than total savings; 3 times greater than accumulated net foreign reserves up to 1996, and 55 times greater than the direct foreign investments in Egypt up to 1996; 30 times greater than the market value of the 746 companies registered at that time in the Cairo Stock Exchange; and 116 times greater than the value of 63 public enterprises privatized in the period of 1992–1996.

3.28 Legal acknowledgment of informal holdings will have a positive impact on the national economy. It will: revitalize dead capital; put credit at the disposal of the poor; and enhance tax revenues and lower inflation.

3.29 These informal holdings are “dead capital”, because the poor cannot trade the land and dwellings on the market and cannot use them as collateral to formally access funds to finance their micro-enterprises.

## **F. Poverty and Access to Land**

3.30 Poverty manifests itself and exists within pockets of the cities of North Africa, often in the informal urban areas and rural settlements.

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13 In the 1980s, before the Martial Decree 1/1996, the Ministry of Agriculture and Land Reclamation estimated the losses of agricultural land to human settlements at 60 thousand feddan per annum. Three years ago, the National Democratic Party issued a paper on the protection of agricultural land from human settlement sprawl. The paper estimates the lost agricultural land in the past four decades at 1 million feddan. The paper estimates urban informal settlements built on agricultural land amount to 80 per cent of the total informal settlements in Egypt.

3.31 In urban settlements in the region poverty is evident and causes discontent that, in the past, has developed into violent unrest (Walton, 1989). The information in Table 6 shows that the percentage of poor households has increased during the last decade and that female-headed households represent a significant ratio of the urban poor in the region. A female-headed household in a North African city is more likely to be poor.

**Table 6. Urban poverty data by sub-region, 1993 and 1998, per cent**

Total cities	Cities with data	UN sub-region	Poor households		Poor women-headed households	
			1993	1998	1993	1998
5	2	Northern Africa	7.8	11.8	10.0	12.9

Source: Flood (2001).

3.32 Poverty in rural areas is relatively high in North Africa (Table 7). Facing policies in favour of market liberalization in terms of removal of subsidies, market competition, imports etc., the rural poor may be forced to abandon their small farms. This will benefit the large farms, concentrating land in the hands of the rich. The poor may also hold on to land as a refuge, continuing the process of land fragmentation.

**Table 7. Poor in rural areas as per cent of rural population in North Africa, 1990–2004**

Country	Poor as per cent of rural population
Algeria	30.3
Egypt	23.3
Libya	NA
Mauritania	61.2
Morocco	27.2
Tunisia	13.9

Source: World Bank (2007).

3.33 The multi-dimensional and dynamic nature of poverty–land linkages poses two fundamental challenges for planning and management of land uses:

- The need to manage and sustain the long-term capacity of the environment, particularly land resources, to provide the goods and services on which sustainable human development depends.

- The need to ensure secure equitable access of the poor to land resources and the benefits that they can derive from the resources (UNDP, 2003).

3.34 The widespread poverty in North African countries and the accelerating momentum of impoverishment processes are among the main reasons why the capacity of the natural resources (particularly land and water) to provide the people of North Africa with sustenance is strained.

3.35 Malnourishment and hunger are associated with poverty (Millennium Development Goal (MDG) 1). The constraints to agricultural development and food security in North Africa are numerous. Several converging trends threaten the future of the livelihoods of the poorest stratum of the society. Among the most important are:

- Global climate change and persistent drought: North Africa is predicted to become warmer and drier with reduced crop productivity compared to other regions; cereal production is projected to decrease by 10 per cent.
- Water scarcity and inefficient water use: North Africa (with West Asia) is already one of the most water-scarce regions in the world, and this situation is projected to worsen markedly over the next 25 years. The limited water resources continue to be mined causing depletion of water tables and the salinization of good agricultural land.
- Limited land resources and continued desertification: Arable land constitutes only 5 per cent of the total land area in North Africa. Over 45 per cent of the area dedicated to agriculture and rangeland is experiencing some form of degradation.
- Insufficient investment in science and technology in agricultural research: As a result of the limited investment in agricultural research, insufficient and, at times, inadequate production and protection technologies are available for transfer to the farmers, including improved cultivars of various commodity crops. The proportion of national agricultural gross domestic product (AGDP) allocated to national expenditure invested in agricultural research is only 1.2 per cent of what has been recommended for developing countries.
- Inadequate policy environment: Technology alone will have limited impact if it is not supported by an enabling policy. Therefore,



science and technology should be backed by policy research to provide options for the policy makers to formulate appropriate national policies for a positive impact at farmer level (El-Beltagy, 2004).

## **G. Land tenure and Gender Issues**

3.36 Islam honours women, and gives them rights to own land and other assets through direct purchases and inheritance. A special chapter of the Quran is about women and the legal provisions for a Muslim society. The civil laws and Islamic *Shariya* applied in North African countries do not deny women their right to access land.

3.37 The governments of the countries in the region have taken serious measures to empower women. For example, since the promulgation of the *Code du Statut Personnel*, the Tunisian woman has enjoyed the same rights as the man, except the succession rights which are inspired by the Muslim law and whereby the share of the man is double that allocated to the woman.<sup>14</sup> In Tunisia women are not subject to any discrimination and enjoy equal rights to those of men.

3.38 UN Population Prospects (time series statistics) show that female enrolment in education in the region at all levels has generally improved in recent years. However, the gender gap still persists where the ratio of girls to boys enrolled is considerably low for primary education. Socio-economic factors including customary attitudes, early marriage and pregnancy, the lack of adequate and physically accessible schooling facilities, the high indirect costs of education and family dependence on child labour for supplementary income probably hinder girls' access to education.

3.39 Privatization measures appear to have had a disproportionately significant effect on women. These measures have constrained job opportunities resulting from the mismatch between disciplines offered by the current education system and the actual market requirements. The opportunities for vocational training are inadequate, expensive or non-existent.

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<sup>14</sup> This is a disputed issue. According to many Muslim scholars and clergymen, men are responsible for the welfare of women, whether a wife, a sister or a daughter. Furthermore, upon the death of the spouse, the wife gets 0.125 of the net wealth of the deceased husband. Islamic laws permit the mother to inherit from her deceased son/daughter.

3.40 Women represent the major workforce in farming activities (horticulture, olive production etc.). Women in rural and remote areas deserve special attention due, in part, to economic underdevelopment and social marginalization.

3.41 Statistics show that the proportion of women in family labour is up to 64 per cent in Tunisia.

3.42 Customary practices related to land are, however, different from the provisions of the law. According to Ben Saad (2006), in some regions in Tunisia customary rules for land division discriminate against women at the time of transmission of real estate using the *habous* institution (Table 8), and also by the application of habits and tribal traditions at time of succession. Since independence, equality between women and men have been improved; however the Islamic code of heritage never excluded the women from the right to succession (Ben Saad, 2006).

**Table 8. Share of the women after the division of habous land, Sidi Aich, Tunisia**

Community	Area (ha)	Number of assignees	Number of women	Per cent of women/ community	Total percentage
Od M'barek	776	231	22	9.5	4.07
Dhebabnia	7 945	670	21	3.1	
Amaimia	10 640	818	27	3.3	

Source: Ben Saad (2006).

3.43 This segregation has become cultural in those tribal communities where customs are considered sacred. In addition, according to Ben Saad the *habous* system, which was not abolished after the promulgation of the legal texts in 1957, allows for such discriminatory practices against the women. The rationale for this institutional gap is to allow for land heritage conservation by the tribe. The gender approach should be explored to put an end to these practices against the women in the rural areas where tribal culture is predominant.

3.44 Several documented best practices exist for involving women in sustainable land uses in North Africa. For example, in Mauritania through a programme supported by the United Nations Sudan and Sahel Office/

United Nations Development Programme (UNSO/UNDP), women have taken the lead in the crucial stabilization of sand dunes. In just 3 years, women in one small settlement have covered 80 ha of dune, enclosing the area with brushwood fencing that they made themselves. Within the protected enclosures, the women have planted trees which stabilize the sand dunes. The women also produce vegetables to ensure proper nutrition for their families (UNSO, 2001). Another example is from Morocco. The argan tree is the second most common tree in Morocco. The tree supports some three million people. Unfortunately, in less than a decade, more than a third of the argan forest has disappeared, and its average density has declined from 100 to 30 trees per hectare. The International Development Research Centre (IDRC) initiated a project to improve the tree's production potential through establishing and supporting local women's cooperatives that would work to regenerate argan forests and increase the production and marketing of argan oil. Project activities focused on training women on techniques for processing argan products, and raising women's awareness of their rights (CGIAR, 2000).

3.45 Countries in the region have to assure gender balanced development policies and plans, where women have the right to hold land and are generally able to access wealth. Sustainable land uses cannot be achieved without women having an equitable share of wealth, and cannot materialize without the full involvement of women in the development process by acknowledging their roles at home and in the field: reproductive, production and community development and networking.<sup>15</sup>

## **H. Global Systemic Environmental Issues**

### ***I. Climate Change***

3.46 It is likely that the first impacts of climate change will be felt in the Mediterranean water resource system. Reductions in water availabil-

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<sup>15</sup> The Commission for Human Rights, Resolutions 2000/13 and 2001/34, stresses that the impact of gender-based discrimination and violence against women on women's equal ownership of access to and control over land and the equal rights to own property and to adequate housing is acute. It affirms discrimination in law against women with respect to having access to, acquiring and securing land, property and housing, and financing for land, property and housing. It also constitutes a violation of women's human right to protection against discrimination and re-affirms women's right to an adequate standard of living, including adequate housing. The Commission urged states to design and revise laws to ensure that women are accorded full and equal rights to own land and other property, and the right to adequate housing, including through the right to inheritance.

ity would hit southern Mediterranean countries the hardest. In Algeria, Egypt, Libya, Morocco and Tunisia, water availability is already below or approaching 1,000 m<sup>3</sup> per person per year—the common benchmark for water scarcity. In North Africa, changes in average climate associated with a doubling of carbon dioxide could cause yield losses of over 20 per cent for wheat, corn and other coarse grains, even before allowance is made for losses through other causes. In coastal areas, large tracts of productive land may be lost through flooding, saline intrusion and water-logging. In Egypt, for example, agricultural production may cease altogether over an area extending 20 km inland.<sup>16</sup>

3.47 National economies would be adversely affected not only by the direct impacts of climate change, but also through the cost of adaptive measures and the knock-on implications of changes elsewhere. Quantitative estimates of financial costs are unreliable but in general, the region is expected to suffer larger relative economic damage than developed countries.<sup>17</sup>

3.48 The Intergovernmental Panel on Climate Change<sup>18</sup> (IPCC) concludes in its fourth report, February 2007, that the earth's average temperature has risen about 0.5°C during the past century. The report further concludes that if the levels of carbon dioxide are double the level in pre-industrial times, average global temperature will increase from 1.8°C to 4°C by the end of this century.

3.49 Environmental changes, due partly to climatic changes, are diverse. Some of the most immediate effects of recent climate change are becoming apparent through the effects on biodiversity. Disturbance of the hydrological/water cycle<sup>19</sup> is another expected impact of climate change, resulting in floods and droughts.

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16 Greenpeace *Climate Change and the Mediterranean Region* (Amsterdam, the Netherlands, Greenpeace). <http://archive.greenpeace.org/climate/science/reports/desertification.html> (accessed 24 Feb. 2008).

17 Greenpeace *Climate Change and the Mediterranean Region* (Amsterdam, the Netherlands, Greenpeace). <http://archive.greenpeace.org/climate/science/reports/desertification.html> (accessed 24 Feb. 2008).

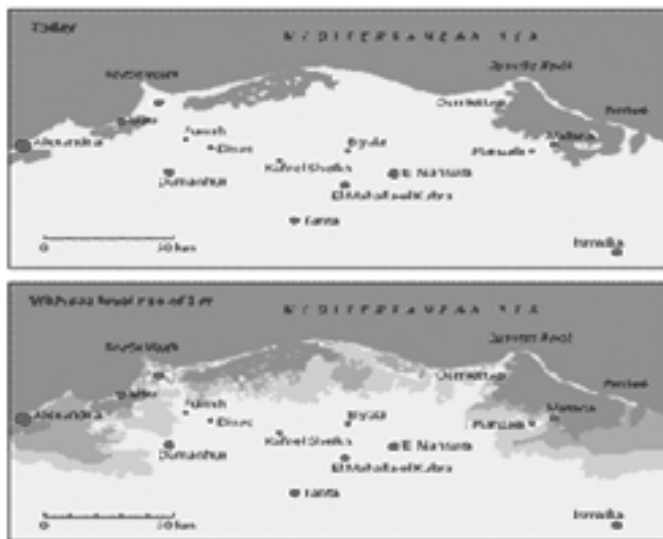
18 Climate change refers to the variation in the Earth's global climate or in regional climates over time. Anthropogenic factors are human activities that change the environment and influence climate.

19 The water cycle describes the continuous movement of water on, above and below the surface of the earth.

3.50 Climate change could also cause significant variation in the annual Nile flood, which provides Egypt with more than 97 per cent of its renewable water resources.

3.51 Egypt's Nile Delta with its coastal front on the Mediterranean is vulnerable to the impacts of climate change (Figure 5). Shoreline erosion, stresses on fisheries and saltwater intrusion in groundwater are major challenges. These factors also produce stressful effects on water and agricultural resources, tourism and human settlements, i.e. on land resources generally. The negative impacts also include the loss of 30 per cent of the total land area, and 195 thousand jobs and relocating more than two million people to the already overpopulated Nile Delta and Valley. The economic losses would exceed \$35,000 million.

**Figure 5. Predicted inundation in Nile Delta.**



Sources: UNEP (2008) adapted from Otto Simonette, UNEP/GRID Geneva, Switzerland; Prof. Florence G. Sestini; Remote Sensing Center, Cairo; DIERCKE Weltwirtschaftsatlas.

3.52 Fragile and unique ecosystems, such as the mangrove stands<sup>20</sup> in the Red Sea are subject to threats resulting from climate change. The northern Egyptian lakes, forming about 25 per cent of the total Mediterranean

<sup>20</sup> These stabilize shorelines and provide a habitat for many species.

wetlands and producing about 60 per cent of the fish, are also highly vulnerable to the impacts of climate change. Since the lakes are relatively shallow, climate change can lead to an increase in water temperature, which could result in changes in the lake ecosystems and therefore changes in yield.<sup>21</sup>

## **2. Desertification and Land Degradation**

3.53 The agro-biodiversity wealth of North Africa is being lost to desertification because of soil degradation and exploitative use of land in the form of overgrazing, deforestation, unsustainable agricultural production practices, and industrial activities.

Drought is a major contributor to desertification. The scarcity of fresh water in the region is reaching alarming levels. The average annual per capita renewable water supplies in North African countries is now less than 1,500 m<sup>3</sup>, much lower than the world average of about 7 thousand m<sup>3</sup> and will fall to less than 700 m<sup>3</sup> by 2025 (T.Y. Oweis and A.Y. Hachum, 2004. p. 181).

3.54 The economic and human costs of an increase in desertification would be tremendous. Today already, Tunisia spends more than \$100 million each year on efforts to combat desertification.<sup>22</sup>

3.55 The threat of global warming continues. Conflict and natural disasters, such as drought, floods and earthquakes are further destroying natural resources and taking a heavy toll on human life.

3.56 Both soil erosion and desertification threaten croplands. North Africa alone has lost an estimated two million hectares<sup>23</sup> of agricultural land since 1975. The cumulative impact of land degradation is about \$1.150 million per year in lost agricultural productivity (Arif and Sarraf, 2001).

3.57 As will be presented later in the report, many North African countries have put in place and are implementing national action plans within the overall framework of the United Nations Convention on Combating Desertification (UNCCD).

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21 So far, in-depth studies on potential impacts of climate change on lake ecosystems are not available.

22 *Green Peace Climate Change and the Mediterranean Region* (Amsterdam, the Netherlands, Greenpeace). <http://archive.greenpeace.org/climate/science/reports/desertification.html> (accessed 24 February 2008).

23 One hectare is equivalent to 2.471 acres.

### **3. Biodiversity**

3.58 North Africa has important resources of biological diversity. It is the home of plant species that are relatives of food and fodder crops, and of hundreds of species that are traditional medicinal plants. It is the habitat of various animal species. The region is the geographic transition between the warm tropics in the South and the temperate zone in the North, and so forms an important part of the routes for migratory birds. It is also a region of rich cultural and natural heritage (which influences the daily lives of the people) and one of the historic sources of civilization (IUCN–EGA, 1998).

3.59 North Africa's natural resources are especially vulnerable because the human population is concentrated in the northern fringe, and desertification is a constant threat.

3.60 The growth of manufacturing and of human settlements, and the development of tourism are putting pressure on land resources. Dangerous and hazardous chemicals that result from human activities, such as manufacturing, pollute soil, sea and inland water bodies.

3.61 Many North African countries have put together and are implementing national strategies and action plans for conserving biological diversity. However, the outcomes of these efforts are still limited. One of the reasons for this is the limited capacities of the responsible organizations, and the need to integrate land use and management within these strategies and action plans.

### **4. Coastal Zones and Land-based Pollution**

3.62 The coastlines of the countries in North Africa are washed by the Mediterranean Ocean and the Red Sea. In addition, Morocco, Mauritania and SADR have long shores on the Atlantic Ocean.

3.63 North African coastal areas are of utmost importance to support the livelihoods of many residents of the settlements in the region. The proportion of the total population living within 100 km of the coast in North Africa is shown in Table 9. The people of Egypt, Morocco and Tunisia depend on coastal areas and the marine environment to sustain their livelihoods.

**Table 9. Population within 100 km of coast, 2000**

Country	Per cent of population within 100 km of coast
Algeria	68.8
Egypt	53.1
Libya	78.7
Mauritania	39.6
Morocco	65.1
Tunisia	84.0

Source: Based on data from EarthTrends, The Environmental Information Portal, World Resources Institute (WRI), Washington, DC. [http://earthtrends.wri.org/searchable\\_db/index.php](http://earthtrends.wri.org/searchable_db/index.php) (accessed on 23 Jan. 2008) based on Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2005. World Population Prospects: The 2004 Revision. Data set on CD-ROM. New York, United Nations. Available online at <http://www.un.org/esa/population/publications/WPP2004/wpp2004.htm>.

3.64 The coastal areas of the southern Mediterranean provide a summary of the problems countries of North Africa face in terms of developmental/land resources relationships:

- Limited space;
- Fragile milieu; and
- Multiple conflicts between competitive activities and between activities and land resources.

3.65 Most of the coastal areas of the region are under severe pressure to achieve economic growth, especially since there is a significant development gap between countries that fall on the southern shores of the Mediterranean and their northern neighbours (Abdelrehim et al., 2005).

## **5. Forests and Grassland**

3.66 Forests are renewable resources. When properly managed, they can produce goods and services to assist development. The survival of North African forests depends on people's recognition and protection of forests as a fragile ecosystem, and on economic and social values.

3.67 Forest areas in MENA region increased by 2 per cent (Annex 4). This is a sign of success, and saves land resources for sustainable uses.



3.68 Natural forest management in dry areas of North Africa has only recently received significant attention (FAO, 1997). Tree planting in the region has been carried out for:

- Sand dune stabilization (e.g. Morocco);
- Rehabilitation of degraded steppe areas (e.g. Algeria);
- Range rehabilitation and improvement;
- Watershed management (e.g. Morocco and Tunisia); and
- Protecting irrigated areas (e.g. Libya, Egypt and Morocco).

3.69 Forest management has a number of goals and targets, and is central to land use and land management and conservation. For example:

- In Tunisia, forest management is part of national efforts to control land degradation. The Food and Agriculture Organization of the United Nations (FAO) has initiated a special programme to assist the country to elaborate national forest management strategies. The process adopted in the design of this programme was participatory and involved public debate over forest problems as related to sustainable development and the participation of all stakeholders. Tunisia elaborated its National Forest Plan (NFP) (DGF and FAO, 2007) in 2007 with a focus on the main challenges: forest conservation and development; management and valorization of land; poverty reduction; and land cadastral.<sup>24</sup>
- In Algeria, forest management is seen as crucial for rural and agricultural development in the highlands. While protecting degraded lands, forest administration aims also to increase the efficiency of marginal lands and reduce poverty of forest users. To this end, land improvements consisted of introducing appropriate mechanization techniques, restoration and rehabilitation of land capital, improvement of water preservation and increasing crop yield. In addition, the programme promoted pastoral plantation to create employment for forest users.<sup>25</sup> In this context, Algeria elaborated and implemented its NFP (1987) aimed at reducing the use of conventional tilling and restoration of Saharan Atlas forests and de-

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24 The idea of cadastre (cadasration = cadastral survey and registration of property right) is a land information system that includes identification of legal status (in Tunisia the cadastre is included in the general effort of what is called apurement foncier meaning clarification of property rights).

25 Rapport national de la Gestion du patrimoine forestier. Algiers, 4 Novembre 2003.

graded pastoral land. Special attention has been given to marginal land by setting up the appropriate infrastructure.<sup>26</sup>

3.70 Fodder from trees and shrubs in the rangelands of North Africa are extremely important to livestock, particularly in the dry season. This is most important to pastoral communities who derive their livelihood from livestock and for whom milk forms a staple food (FAO, 1997).

## I. Direct Foreign Investments

3.71 One way of boosting economic growth is to attract foreign investments. Countries that succeeded in attracting foreign direct investments (FDI) and adopted export-led models for growth, such as the Asian tigers, were able to climb the development ladder. Many countries in Latin America and Eastern Europe followed suit. The North African countries also have succeeded in securing a share of global FDI.

3.72 After adopting neo-liberal policies and after the recent boom in oil prices, countries in the region are attractive to FDI. For example, in Egypt, a real estate development company from the Arabian Gulf is building a development of four million square metres outside Cairo, with one million square metres of landscaped park, the biggest private park in Egypt. Another company, based in the United Arab Emirates (UAE), is investing LE (Egyptian pounds) 31,670 million (\$5,759 million) into residential developments around and within Cairo, and a resort at the northern coast. Between Rabat and Sale, another UAE real estate development company is developing an expansive real estate project on a network of navigable canals. The project is a walking city featuring high quality apartments, landscaped public spaces, marinas, and offices, retail outlets, branded hotels, a convention centre, and a mix of entertainment facilities.

3.73 Several research findings demonstrate negative economic, social and environmental impacts of FDI on both developed and developing countries.<sup>27</sup> The planned real estate developments might have negative im-

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<sup>26</sup> Direction Générale des forêts. Rapport Mai 1999.

<sup>27</sup> Aside from de-industrialization of developed countries, Grimes and Kentor (2003) examine the impact of FDI on carbon dioxide emissions between 1980 and 1996. In a cross-national panel regression analysis of 66 less developed countries, they find that FDI in 1980 had a significant positive effect on the

pacts on social solidarity and environmental resources. The governments of North Africa have to make sure these developments are sustainable by applying measures to assure economic growth, while securing community development and protecting limited, strained natural resources.

## **J. Need for Water and Energy**

3.74 All the countries in the region are short of fresh water resources. The countries are under a continuous threat of droughts, and thus suffer from desertification. Many of these countries are considering unconventional means for securing fresh water, such as water harvesting and desalination. These techniques require substantial investments and appropriate technologies for environmentally-friendly production processes that are also financially feasible.

3.75 Not all the North African countries have oil and natural gas supplies to support their ambitious plans for overall development. Since most people in North Africa live in cities, then manufacturing, tourism and other urban economic activities will grow, with the consequent demand for more energy and fresh water. Two years ago, Egypt considered the nuclear option to produce energy with the assistance of developed countries. Tunisia is also considering this option. In the mean time, Egypt, with the support of several European countries such as Denmark and Germany, has embarked on using wind plants to generate electricity. Many North African countries have already started their plans and implemented projects to use solar energy for heating and to produce electricity.

3.76 The quest of fresh water and plants to generate energy will all develop demand for land resources. It will also require planning for facilities to receive the waste generated from activities that use these new technologies. This requires particular attention in land policies and uses.

## **K. Explosive Remnants of War**

3.77 Land mines and explosive remnants of war (ERW) are a common hurdle that faces land development in North African countries. As a re-

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growth of carbon dioxide emissions between 1980 and 1996. They suggest that FDI is more concentrated in those industries that require more energy and resources at large, such as land and water (see Grimes and Kentor, 2002).

sult of the North African Campaign of World War II,<sup>28</sup> the Egyptian–Israeli wars, and border conflicts between North African countries, land mines and ERW affect several countries in North Africa (Annex 6).

3.78 Land mines and ERW are responsible for injuries and deaths. All of the victims of ERW and mines are those who work on the development and repair of infrastructure, and Bedouins or farmers. They lose their livelihoods once they are injured.

- In Egypt, irrigation projects essential for land reclamation and cultivation, have experienced delays and increased costs because of the need to clear mines and ERW from prospective sites and routes.<sup>29</sup> The need to remove these remnants of conflicts delayed large-scale “wind farm” projects in the western area of Egypt and increased the costs of the 500 kV-power cable connecting Alexandria with the existing eastern electrical network, scheduled to be connected through the western area to the North Africa network. Mines and ERW negatively affect the petroleum sector in Egypt where 4,800 million barrels of oil and 13.4 trillion cubic metres of gas in the western area, and all petroleum areas, except for those in the sea, are in mine and ERW-contaminated or suspected areas.
- In Libya, land mines and ERW affect the agricultural sector. Approximately 295,059 ha<sup>30</sup> in the country cannot be used for agriculture because of mines and ERW. In 1972, the Ministry of Agriculture and Land Reclamation published an estimate of the total income lost from not using affected land at 18,897,760 Libyan dinars (about \$14,475,728). Raising livestock is an important source of income for people in Libya, and having adequate land for grazing is essential for this industry. In 1976, Libyan authorities estimated 1,452,077 ha<sup>31</sup> of affected land could not be used for grazing. Mines and ERW have affected the development of infrastructure in the country, causing delays in road reconstruction and increasing the costs of petroleum project because of the need to de-mine before drilling can start. The Great Man-Made River (GMMR) that carries water from the south of Libya to the

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28 Also known as the Desert War, fought between 1940 and 1943.

29 About 864,654 acres.

30 Around 1,139 square miles.

31 5,607 square miles.

populated areas took much longer and cost significantly more than was originally expected to complete because of land mine and ERW clearance (Sorour, 2006).

## IV. Land Policy

### A. Land Policy Formulation Processes in North Africa

4.1 Agriculture is among the major economic activities in North Africa. Industry including manufacturing and extracting oil and natural gas is another significant economic activity, as is tourism. All of these economic activities require spatial planning where land is central to the overall national development.

- In Tunisia, efforts to modernize agriculture have been associated with land policies since independence. Land policy objectives were twofold: the amendment of traditional tenure systems; and adjusting tenure systems to control land concentration and the sub-division of land (see Moussa, 1988). The basic principle of land policy in Tunisia is achieving individual property rights. Since 1956, the following major steps have marked the evolution of land policy in Tunisia. In the first period, starting in 1956 the concern of the new government was to eliminate the predominant collective system of landholding under which peasants had only usufruct rights to land and replace it with a system of private property land rights. At the end of this period, the collectively managed lands (tribal lands), or lands known as *habous*, which were used to support some public services such as hospitals and schools, were abolished<sup>32</sup> and fully privatized. Privatization of these communal and *habous* lands was followed by the registration process which started as voluntary and then became compulsory<sup>33</sup> (the results of these programmes are discussed later). During the second period, starting in 1961, two important shifts in state policy occurred. The first was a process of establishing state farms through the acquisition of the land previously occupied by colonial settlers. The second was the implementation of a cooperative (socialist) system that lasted for a decade. The purpose of this shift in state policy was to create better conditions for efficient use of labour and technological change and to increase productivity. In the third period, which started in 1970, the government initiated a process of privatization to eliminate the

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<sup>32</sup> Decree 31 May 1956 abolished *habous* lands and transferred them to state private lands (200,000 ha) (see Moussa, 2006).

<sup>33</sup> Decree 20 February 1964.

cooperatives and the state farms, which were seen as a major government burden. Some cooperatives, however, were transferred to state domain (*terres domaniales*).

- Land policy in Algeria is at the heart of agricultural development. The model of land policy adopted since the 1980s was inspired by the Eastern European countries, i.e. relocation of state lands. Since then privatization has been adopted to achieve higher agricultural returns but ownership of land remains in the hands of the state whereas land tenants have only usufruct rights. This policy has also been a condition to improve competitiveness in the process of trade liberalization and WTO negotiations. Land reforms started as early as 1963, immediately after independence. The nationalization of ex-colonial lands had been a major concern among stakeholders. The first decrees (March 1963)<sup>34</sup> stipulated the state ownership of these lands. By mid-1966 all unoccupied land had been also transferred to the state and turned over to workers under a self-management system. These state domain lands were transformed into a socialist (collectivist) sector (2.2 million ha) run by workers' committees and received substantial funds from the government. This centrally planned (public ownership) sector managed by the *Office National de la Réforme Agraire* (national office of agrarian reform) has suffered from bureaucratic practices and lack of worker motivation. Following the same socialist principle, a decree of November 1971 called for the first land reform aiming at the equalization of land rights and the "land to the tiller" principle. This reform consisted of land nationalization of over 1.14 million ha (almost half of the state owned lands mentioned above) taken from absentee farmers. The result of these land reforms is that both land types (ex-colonial and land belonging to absentees) were taken over by the state (Benaissa, 1999). Private ownership therefore was restricted and ownership security depended largely on the state land policy in place. The objectives of such reforms were not fulfilled (low production and productivity in spite of heavy intervention of the state). Successive reforms were formulated to resolve the above problems: liberalization of commercialization (1980); reorganization of state farms (1981); and access to land ownership (1983). Land reform in 1981 started by

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<sup>34</sup> Decree 18 March 1963–22 March 1963 and 28 March 1963 all advocated for state ownership (see Baci, 1999).

reducing the size of state farms and resulted in the socialist farms (*Domaines Agricoles Socialistes*)—about 3,200 farms. The main objective was to have viable units of production of optimal size but the management would remain that of the cooperative principle. In 1983 a decree stipulated the access to land ownership in desert areas. This process contributed to the distribution of about 187 thousand ha in 1987. The state has pledged technical and financial support to about 42 thousand newly settled farmers. Commercialization of farm products has also been liberalized according to the above reform. The last reform, starting in 1987, further advocated state land ownership and management as part of a comprehensive economic restructuring programme. These reforms consisted of creating collective farms along individual enterprises with only usufruct rights. The reforms presented above were basically led by the state with little participation of civil society. In this process, farmers were indifferent and had no motivation to invest or improve their skills; this resulted in the stagnation of agricultural production (Baci, 1999).

- In Morocco, although land problems have been identified as a major restriction to agricultural development, land reforms have been limited (Jouve, 2002). Land policy in the country has varied between two models: the adoption of a voluntary transformation process (adjustment) of land distribution and a more liberal policy of land distribution according to the land market principle. In the last two decades, there were promises of reform protecting farmers against (capitalist) land speculation. However, the government only made efforts to redistribute ex-colonial land after the reform of 4 July 1966 and these efforts were limited (only 50 per cent of land was redistributed) (Bouderbala, 1997). The process of redistribution of ex-colonial (state-owned land) has also been very slow (it took over 17 years). Since the 1980s, the new policy orientation has shifted from land distribution and equity to economic efficiency and competitiveness. This has been in favour of the large farms and irrigated agriculture, the focus of the modernization programme. The implications of this model on land policy and land systems are: land as a market good available for transactions, but this has been subject to many problems including the multiple land regimes; ownership security (land title) as an incentive to in-



vestment; and concentration (scale-up) of small farms to build viable units.

- Land policy in Mauritania is part of the national policy debate. Land issues have been the focus of dialogue and compromises among the different ethnic groups (the Bidan and Haratine are dominant, followed by the Halpulaar-en, the Soninke and the Wolof). Each of these ethnic groups has legitimate historical tenure claims to the fertile flood recession land in the Senegal River Valley. Land tenure reforms in 1983/1984 intended to promote irrigated areas of the valley also brought conflicts among these ethnic groups as the Bidan community expanded its landholding in the Senegal River Valley (see Bohrer, 1996). The influence of the Maure over land tenure is the result of the tenure legislation of the colonial government that recognized the Islamic principle of land to the user and accordingly traditional tenure claims were converted into private legal property through land registration (*immatriculation foncière*). In 1960 the colonial government recognized traditional claims to land, while all unclaimed land became state property. The first reform after independence occurred in 1983 and stated that all Mauritians have an equal right to landownership and that individual private property is the standard form of landholding. Successive reforms over land tenure and legislation were intended to promote agricultural development and land productivity (1983–1984). Mauritania has signed a commitment with Mali and Senegal to promote irrigation throughout the Senegal Valley Basin. These projects, however, led to conflict with Senegal in 1989.

## **B. Land Reform in North Africa**

4.2 North African countries have undertaken major land reforms. Algeria, Egypt, Libya, and Tunisia all undertook extensive land reform programmes in the period 1950–1975, achieving significant benefits in favour of peasant farmers, landless workers and pastoral nomads. The reforms also substantially improved access to European export markets and reduced the high rates of malnutrition, illiteracy and landlessness, which prevailed in the low income traditional rainfed agricultural sector. The state-interventionist approaches adopted (supported by high levels of capital investment)

by the land reforms included: recovery of foreign-owned land; ceilings on maximum land ownership (in Algeria, Egypt and Libya); and provision of subsidized modern agro-inputs, irrigation water, free extension services and primary education.<sup>35</sup>

4.3 Although not all expropriated land was redistributed to the poor and the state became the largest landowner in the region (by establishing state farms), nearly one million farmers across North Africa became landowners. Land reform and new land settlement schemes contributed to agricultural growth across the region, including technical change, providing beneficiaries with security of tenure, and contributing substantially to poverty reduction. Rapid urbanization, the oil boom and rising domestic consumer demand all contributed to rising agricultural incomes. However, most rural workers (as opposed to tenant farmers) were excluded from land redistribution. Inequality persists in North African agriculture, and as land distribution and rural investment declined during the 1970s and 1980s, richer farmers and those with larger landholdings came to benefit disproportionately from agricultural services. Large numbers of landless rural labourers remain, whose livelihoods are threatened by population growth, the falling quality of agricultural land and the withdrawal of state support during the structural adjustment period of the 1980s and 1990s. The arid and semi-arid rangelands fringing the Sahara remain under customary forms of pastoral management. Islamic land law has also had a significant influence on tenure relations in North Africa.<sup>36</sup>

4.4 The post-independence period in North Africa was one of immense optimism that land reform would generate economic growth. The colonial inheritance in Algeria, Egypt, Libya and Tunisia was one of high concentrations of smallholders, high levels of landlessness and rural poverty. In Tunisia and Algeria an expansion of state ownership of land followed the exodus of the French colonialists. After independence in 1956, Tunisia aimed to establish a stable independent peasantry alongside large state run farms. The colonial legacy in neighbouring Algeria was far more pervasive. Its struggle for independence left about 1 million Algerians dead and at least

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35 African Union Commission, African Development Bank and Economic Commission of Africa, *Land Policy In Africa: A Framework To Strengthen Land Rights, Enhance Productivity And Secure Livelihoods* based on Quan (1997).

36 African Union Commission, African Development Bank and Economic Commission of Africa, *Land Policy In Africa: A Framework To Strengthen Land Rights, Enhance Productivity And Secure Livelihoods* based on Quan (1997).

8,000 villages destroyed. Landless and displaced farmers seized abandoned colonial estates in the struggle for liberation, and gave momentum to agrarian reform not matched elsewhere in North Africa. After Moroccan independence in 1956, the state increasingly dominated imports and exports of agricultural commodities. The state controlled the domestic price of wheat and the movement of cereals. It subsidized most agricultural inputs and wheat, flour, sugar and edible oil, and determined cropping patterns within irrigated areas. Liberalization began in the late 1970s and early 1980s in association with the World Bank and the International Monetary Fund (IMF) policies for structural adjustment, which the United States Agency for International Development (USAID) also advocated in many North African countries (Bush and AbdelAal, 2004).

4.5 Egypt's land reform in 1952 was the first large-scale reform in the Middle East and probably the most influential in the region and beyond. Unlike the later reform in Algeria, Nasser's revolution retained the sanctity of private property, and individual family farms remained the centrepiece for rural development. Land reforms between 1952 and 1975 helped reduce poverty and promoted growth. The land reforms benefited from a broader context of labour migration for North African, particularly Egyptian, workers. There were also benefits for the rural poor accruing from extensive government food and agricultural input subsidies, and improved provision of health and education services. However, the benefits from these land reforms could have been more impressive and sustainable. While the régime trumpeted the reforms for being impressive in the delivery of rural growth and improved standards of living, the ceilings on landholdings remained high and thereby did not substantially undermine the interests of major landlords. When landowners were challenged about continuing to own large holdings they simply signed land ownership to family members or used local or national patron–client links to influence policy implementation and keep the state at bay (Waterbury, 1983; Bush and AbdelAal, 2004).

## C. Land for National Development

### I. Land at the Crux of Agricultural Development Plans

4.6 In North Africa, the major objectives of agricultural development plans during the last two decades were threefold: 1) ensuring food security; 2) contributing to job generation; and 3) reducing regional disparities within countries. Most countries in the region have undergone structural adjustment plans following the liberalization process and WTO agenda. The main feature of these plans is the due consideration given to natural resources, namely rational use of fresh water, protecting natural resources from wastes and conserving land resources.

- In Tunisia, such attention has materialized into specific strategies: water development; soil and water conservation; and forests, pastoral lands and desertification management.<sup>37</sup> In addition, agricultural policy has given special attention to land policy and in particular to state land.<sup>38</sup> Land policy is guided by valorization and the contribution of each parcel of land to agricultural development effort. During the period 2002–2006 (10<sup>th</sup> plan) the main measures undertaken to strengthen the competitiveness of the agricultural sector were related to land questions: cadastral and control of land fragmentation. Land cadastral and registration aim to clarify the ownership of 3 million hectares over the next 15 years.<sup>39</sup>
- In Algeria, the national plan for agricultural development is well adapted to specific agro-climatic constraints. The plan is constructed around three programs to deal with land degradation: 1) adaptation of production systems; 2) assistance to land valorization using land concession programmes; and 3) local development projects (Ben-Derradji et al., 2006). Since 2000, the development agenda has been placing more emphasis on food security and the protection of natural resources. Specific objectives of such an agenda include: the mobilization of water resources; infrastructure development and commercialization; and land protection and privatization of state lands (BenBekhti and Boualem, 2006).
- In Morocco, most development plans have prioritized agricultural development, given the importance of the rural population

<sup>37</sup> See *le plan agricole et les ressources naturelles* (the three last successive plans).

<sup>38</sup> Ministère de l'Agriculture, *9<sup>ème</sup> plan du développement économique et social (1997–2001)*.

<sup>39</sup> See the evaluation of the 10<sup>th</sup> plan in the 11<sup>th</sup> plan (2007–2011) pp. 6–7.

(44 per cent in 2000) (Jouve, 2002). Despite this, rural areas have been lagging behind urban centres in terms of social development. Furthermore, the policies based on economic performance have favoured certain regions and certain social groups, such as those located in the irrigated areas. In regard to land policy, it is noticeable that despite the recognition that land problems are among the serious constraints to agricultural development and modernization, these problems are not well addressed (Jouve, 2002).

- Since 1969, Libya has paid more attention to agricultural development. The government has given inducements to absentee landlords to encourage them to put their land to productive use and initiated high agricultural wage policies to stem the rural-to-urban flow of labour. These policies met with some success. Production levels began to rise slightly, and many foreign workers were attracted to the agricultural sector. Agricultural development became the cornerstone of the 1981–1985 development plans that attached high priority to funding the GMMR project that has had positive impacts on agricultural land use (Metz, 1987).
- Since the 1952 Egyptian Revolution, a number of mega agricultural and irrigation projects were launched, where land was central to national development schemes. The most significant and best recognized project is the Aswan High Dam, which succeeded in achieving water security for Egypt, and supported efforts for land reclamation. This contributed to vertical and horizontal agricultural expansion. The agricultural area increased from 5.2 million *feddan* in 1950s to reach 5.8 million *feddan* in 1970s.<sup>40</sup> Agricultural development continued: the annual growth rate increased from 2.6 per cent in the 1980s to reach 3.4 per cent in the 1990s and 3.97 per cent in 2005/2006. Moreover, the area of farmlands increased to 2.3 million *feddan* during that period. Egypt's expansion projects contributed to an additional 1.3 million *feddan*, thus increasing the inhabited area from 5.5 *feddan* of Egypt's area to a

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<sup>40</sup> While agricultural land expanded in area, the sprawl of human settlements over agricultural land was at higher rates than in the past five decades.

projected 25 per cent<sup>41</sup> by 2017 and redrawing the population map after developing new urban communities in the deserts.<sup>42</sup>

4.7 The policies mentioned above were initially seeking better livelihoods for people in the rural areas. However, due in part to globalization and privatization processes, the role of the public sector in this endeavour has been shifting toward policies favouring the more competitive activities. Many North African countries are in the process of decentralizing development initiatives. The result is favouring regions with comparative advantages, thus widening regional disparities and raising questions concerning social equity within nationally defined boundaries.

4.8 In this regard, some development programmes such as the Moroccan development plan have been affected by financial difficulties (Elloumi and Jouve, 2004). The implications of liberalization policies implemented in the country during the 1980s have also had negative implications on agricultural production and factor productivity, and on the rural population. Conversely, in Algeria the increase in oil prices has been beneficial to the implementation of the above mentioned programmes.

4.9 Development policies and plans have previously considered land issues including land degradation, irreversible loss of soil structure, and increase in salinity due to irrigation. It is important to keep in mind that land and water are vital factors in the region and therefore any policy related to one aspect affects the other. Land tenure in particular has been the focus of recent development strategies since the tenure system determines production structure and productivity.

## **2. Combating Desertification and Conserving Land Resources**

4.10 Following the adoption of UNCCD, countries in North Africa embarked on elaborating and executing plans, programmes and projects to

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41 According to the National Spatial Strategy and the Development Plan of Egypt 2017, an estimated 44 new communities will be added to the Egyptian urban system to increase the inhabited area from 4 or 5 per cent to 25 per cent by 2017. More on these plans is in the subsection on Spatial Development in this report.

42 Egypt, State Information Service, Agriculture and irrigation, in Year Book 2006, (Egypt, State of Information Service, 2006). <http://www.sis.gov.eg/En/Pub/yearbook/yearbook2006/110104000000000006.htm> (accessed 19 Feb. 2008).

combat desertification and manage drought. These countries scattered their activities in the 1970s and 1980s to combat degradation in one or more of the land use categories. These activities were carried out based on sectoral approaches through governmental institutions and public authorities. The activities included surveys, studies, formulation of pilot programmes, and carrying out a limited number of projects. The activities were of limited duration and were not continuous. This approach changed later—the sustainability of combating desertification and managing drought cannot be achieved if not elaborated and implemented via a multi-stakeholder approach that result in interventions that balance economic growth, social equity and ecological conservation at the same time.

4.11 After the inception of UNCCD in 1996, all the countries ratified the convention and formulated their national action plans (NAPs). Through elaboration of the convention committees, meetings and guidelines, the countries made concerted efforts to put the national activities on the right track. These efforts included coordination, institutional set-up, convening stakeholders' workshops, involving non-governmental organizations (NGOs) and civil society, defining roles for women and youth, adopting a participatory approach, progressive awareness of the adverse impacts of desertification at varied levels, integration through development plans, execution of major projects with consultation and joint finance of regional UN organizations and established financial mechanisms. In addition, extensive discussions and meetings on sub-regional, regional and international activities were held. In Tunisia and Morocco, these activities were more elaborate than in the other North African countries. The activities that were carried out generated positive impacts; diversified returns; stories of success and failure; experiences gained; testing of technologies; and building national capacities. Some of the successful activities highlighted in the countries' reports include (El-Bagouri, 2006):

- Most governments adopted reform policies: greater attention was given to benchmarks and indicators; establishing more climate stations for recording and analysis of climatic parameters; formulation of legislation geared towards conservation of natural resources and environmental protection; and enhanced establishment of protective belts of trees and shrubs.
- Encouraging research activities to varied extents.
- Improved management of watersheds through establishment of water harvesting and storage facilities and the use of supplemen-

tary irrigation techniques to improve and develop rainfed agriculture.

- Measures were taken to curtail losses of conveyance and on-farm use of irrigation water. Increased use of groundwater resources in addition to more considerations to the use of non-traditional water resources under conditions of irrigated land.
- Implementing projects for better management of rangeland and forests, establishing nurseries for replanting trees and shrubs of appropriate traits, and enhancing forage productivity.

4.12 Tunisia is at the forefront in undertaking and promoting efforts to combat desertification nationally and internationally. The country established institutional mechanisms after ratifying UNCCD and finalizing its NAP in 1998. The Global Mechanism (GM) brought together the partners to pursue a common strategy to promote the NAP as a framework for orienting national and development partners' efforts to enhance national policies and strategies for sustainable resource management. In 2002 the Government of Tunisia (Ministry of Environment), with the support of the GM and its partners, undertook preparatory activities and adopted a three pronged strategy to:<sup>43</sup>

- Elaborate a set of eligibility criteria to guide NAP project and programme development and allow for monitoring and evaluation of NAP implementation;
- Operationalize NAP by developing a portfolio of 15 NAP priority projects in line with the eligibility criteria for inclusion in the 10<sup>th</sup> Socio-Economic Development Plan (2002–2006);
- Advocate and lobby with development partners for the financing of projects of common interest.

4.13 Desertification programmes in Tunisia are part of the national efforts to promote sustainable development as a commitment to implement the UN agenda to control desertification problems. The programme follows the principles set forth by the agreement, namely partnership between the public administration and the population; cooperation between the public authority, collectivities, NGOs and farmers; and international cooperation (sub-regional, AMU and regional, African Union). Desertification has been

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43 The Global Mechanism TUNISIA: Mainstreaming the UNCCD into National Planning Processes. [http://www.global-mechanism.org/dynamic/Image/Tunisia\\_factsheet.pdf](http://www.global-mechanism.org/dynamic/Image/Tunisia_factsheet.pdf) (accessed on 23 January 2008).



dealt with comprehensively to cover soil, water and pastoral lands management. Three main strategies are related to desertification programmes: 1) the National Strategy of Soil and Water Conservation; 2) the Pastoral Land Improvement Strategy; and 3) the Water Development Strategy (Ministère de l'environnement et de l'aménagement du territoire, 1998). The Government of Tunisia organized a partnership-building workshop in 2002 to further refine the strategic orientation for NAP implementation and strengthen partners' commitment to mainstream the NAP into the 10<sup>th</sup> Socio-Economic Development Plan. The outcome of this concerted action by all partners led to the adoption of the NAP as the core strategic framework for addressing land degradation issues in the 10<sup>th</sup> Socio-Economic Development Plan. In 2005, GM provided additional support to consolidate the implementation of the Financing Plan by mainstreaming the NAP into the strategic development frameworks at the "sub-national" level. Achievements in Tunisia can be expressed in quantitative terms. In the 10<sup>th</sup> Plan, \$18.6 million in domestic resources were secured to finance the 15 NAP priority projects. Furthermore, there was an overall 23 per cent, or \$400 million, increase in national budgetary allocations for combating desertification completed to the 9<sup>th</sup> Plan. Achievements can also be expressed in qualitative terms. As a result of the efforts cited above, implementation of UNCCD has become a national development priority. Critically, this ensures continuity of financing for land degradation related activities regardless of institutional reorganization. In addition, the need to adopt a multidisciplinary and integrated approach to combating desertification is increasingly acknowledged. Though much work remains to be done to consolidate the process, the above achievements constitute solid foundations for the sustainable implementation of UNCCD and the NAP in Tunisia.<sup>44</sup>

4.14 In 2000, the Government of Morocco approached GM, UNCCD Secretariat, UNDP and the German Technical Cooperation Agency (GTZ), requesting support for NAP elaboration. The partners responded by developing a joint strategy for NAP formulation and implementation with the aim of integrating NAP into national planning processes. As preparatory work, GM financed the elaboration of a report on national financing mechanisms. Morocco's NAP provides a conceptual and strategic framework for UNCCD implementation in line with the National Rural Development

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44 The Global Mechanism, TUNISIA: Mainstreaming the UNCCD into National Planning Processes. [http://www.global-mechanism.org/dynamic/Image/Tunisia\\_factsheet.pdf](http://www.global-mechanism.org/dynamic/Image/Tunisia_factsheet.pdf) (accessed on 23 January 2008).

Strategy 2020. The challenge was to translate NAP priorities into action on the ground, given the national programming and budgeting constraints. In 2002 GM provided financial support to the Ministry of Agriculture and Rural Development. The GM also provided capacity-building support to the RIOD (Réseau international des ONG sur la Désertification) Focal Point, with a view to institutionalizing NGO participation and to facilitate direct NGO access to national resources.<sup>45</sup> Stakeholders at a partnership-building workshop discussed the results of the analyses and the preliminary financing strategy in 2003. Fifty-three projects—both new and reoriented—were formulated and the Ministry of Finance committed national co-financing to implement them. Potential external financing partners were identified and a financing plan was established. One outcome was renewed support from UNDP and GTZ, two close collaborators in the process. NAP implementation partnerships were established with Belgium, Spain, OSS (Observatoire du Sahara et du Sahel; supported by European Union funds), the International Fund for Agricultural Development (IFAD) and the United Nations Industrial Development Organization (UNIDO). Subsequently, Spain and the Government of Morocco entered into an agreement for \$1.5 million to promote rainfed agriculture in the Semmar region and the Global Environment Facility (GEF) Secretariat approved PDF-B financing (Project Development Facility, Interim stage) for a project to promote participatory control of desertification and reduce poverty in the high plateau ecosystems of Eastern Morocco. Challenges, nevertheless, persist in terms of NAP implementation, specifically with regard to the need to institutionalize the participatory processes and to consolidate sustainable financing to address land degradation-related issues.<sup>46</sup>

4.15 Algeria has a long history of combating desertification, reflected in the many national initiatives undertaken in the forestry, agriculture and water sectors. In 2000 the NAP process was initiated with the support of UNDP/UNSO. The aim was to increase the social, economic and ecological impact of UNCCD-related activities through the development of an integrated and participatory framework for effective coordination of initiatives. In 2001 the Government of Algeria requested GM to engage in the process by supporting complementary activities in thematic areas and in assisting

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45 The Global Mechanism, MOROCCO – Developing a Process- Oriented Financing Strategy. [http://www.global-mechanism.org/dynamic/Image/Morocco\\_Factsheet.pdf](http://www.global-mechanism.org/dynamic/Image/Morocco_Factsheet.pdf) (accessed on 23 January 2008).

46 The Global Mechanism, MOROCCO – Developing a Process- Oriented Financing Strategy. [http://www.global-mechanism.org/dynamic/Image/Morocco\\_Factsheet.pdf](http://www.global-mechanism.org/dynamic/Image/Morocco_Factsheet.pdf) (accessed on 23 January 2008).

with resource mobilization. A NAP validation forum was held in December 2003 and the recommendations for NAP implementation were adopted. The assessment revealed that significant national resources were being allocated for the sustainable management of natural resources and poverty alleviation through the National Fund to Combat Desertification, the Fund for the Development of the High Plateaux and the Fund for Rural Development and Land Planning. The main constraints to achieving optimal results in combating desertification are: 1) insufficient inter-sector coordination; 2) inadequate capacity at national level; and 3) the lack of enabling incentive frameworks for NAP and UNCCD implementation. Accordingly, GM support has been reoriented to optimize the use of existing national resources and reinforce inter-sector coordination for adopting an integrated and holistic approach to address desertification issues.<sup>47</sup>

4.16 Desertification in Mauritania has been always a concern to national authorities even though development actions since the 1960s generally have addressed environmental degradation. Major projects undertaken include:

- Renewable resources management (1980)
- Forest plantations (1980)
- Oasis development project (1980)
- Master desertification plan (1986)

4.17 Institutionally, to implement the above programmes government and NGO activities have been created. At the government level, a national committee for desertification headed by the president has been created alongside a directorate responsible for environment protection. The directorate deals with soil and pasture conservation and forest restoration.

4.18 Laws and policies took into consideration the interaction between production systems, ecosystems and social systems. The land question in particular was crucial in management due to the coexistence of customary and statutory laws. Hence, a new set of legislation was put forth in 1983 and 1984 aiming at land reform. In addition, the financial and economic readjustment programme (1985–1988) analysed desertification and ways to reduce its consequences.

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<sup>47</sup> The Global Mechanism ALGERIA: Strengthening Multi-stakeholder Participation and Institutional Processes. [http://www.global-mechanism.org/dynamic/Image/Algeria\\_factsheet.pdf](http://www.global-mechanism.org/dynamic/Image/Algeria_factsheet.pdf) (accessed on 23 January 2008).

### 3. Land and Spatial Planning for National Development

4.19 North African countries have formulated plans for spatial development, particularly for urban management and development control. Plans for land uses at the national level are central to economic and social development, and for conserving natural resources, including land.

- In 1996 the Egyptian Ministry of Planning prepared, with the assistance of UNDP, a National Spatial Strategy (NSS) to the year 2017, with detailed regional plans for the seven economic regions. The Ministry of Housing, Utilities and Urban Communities prepared a plan to 2017 to add 44 new settlements to the Egyptian urban system. The plan aimed to increase the inhabited area from 4–5 per cent to 25 per cent of the total area by 2017. These two plans were instrumental in founding national mega-projects outside the Nile Valley and Delta.
- Since 1998, Morocco has been witnessing major democratic and political transition. For the first time in the history of independent Morocco the opposition had the opportunity to govern the country. After the successful completion of the national Agenda 21 (A21),<sup>48</sup> as their road map to sustainability, the United Nations Programme for Human Settlements (UN-Habitat), in collaboration with the UNDP Country Office, started an ambitious project to formulate three local A21 in three major cities: Marrakesh, Meknes and Agadir, using a participatory approach. In 1999 Morocco started a dialogue on land management as a framework for coordinating public policies. The dialogue was a step towards linking local and national levels via institutional transformations based on the promotion of human rights and principles of good governance. Parliament reviewed these plans and the local communities provided inputs (priority needs and suggestions). The overall approach led to enhanced decentralization, and to reinforcement of national unity. In 2003 new legislation for local administration in Morocco was passed. The aim was to strengthen the trend of decentralization and de-concentration of powers in favour of local communities. During 2003 Morocco held elections for the local councils. Currently, these councils are responsible for managing human settlements. Using a participatory approach, the govern-

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<sup>48</sup> This agenda was supported by the Capacity 21 programme of UNDP.

ment has put into place a strategy that has specific priorities and assigns roles to specific stakeholders for national land uses and spatial planning for the overall national development. This strategy serves as a framework guiding actions and interventions. The participatory process used to formulate this strategy created synergies and partnerships that are the foundations for future actions.

4.20 Many North African countries have attempted to conserve urban assets and upgrade informal urban settlements. The Aga Khan Foundation awarded prizes for these efforts to several initiatives in North Africa, such as Hafsia Quarter located in the eastern part of the old Medina of Tunis and Sidi Bou Saïd, Tunisia; Courtyard Houses, Agadir, Morocco; and Darb Qirmiz Quarter, Cairo, Egypt. As for efforts to upgrade informal areas, the Governorate of Ismailia, Egypt, with the support of several donors, succeeded in upgrading many informal areas within the city. The Ismailia experience is internationally acknowledged, and UN-Habitat has documented it as a best practice while the Aga Khan Foundation awarded the initiative an Honourable Mention. The Aga Khan Foundation has been active in Egypt by initiating projects that preserve historic areas, upgrading informal settlements and improving the built environment with positive impacts on land.

4.21 Based on the success of a small home-grown and self-financed pilot programme, the central and local governments of Mauritania, in partnership with urban poor communities and the private sector, combined forces to scale up and develop a national strategy and programme for slum upgrading. This programme will be financed primarily by the World Bank and by other international donors. It aims to ameliorate living conditions in the slums of the main towns of Mauritania—Nouakchott and Nouadhibou—and to improve and consolidate the institutional framework for urban and land management systems.

#### **4. Adopting Neo-Liberal Economic Policies**

4.22 Most countries in North Africa have adopted economic reform and structural adjustment programmes (ERSAP) that call for trade liberalization, limiting state control on the national economies, and encouraging foreign and national private initiatives. The implications of these neo-liberal economic policies have positive results at national level in terms of closing

budget deficits. The policies also led to reforming the financial sector. However, these neo-liberal policies have had some negative impacts on the poor, particularly rural settlers, in North Africa.

4.23 As in many countries in the region, Egypt's Law 96/1992 on economic liberalization reversed post-independence reforms. The modernization of agriculture has been at the heart of strategies for economic development. These strategies included the importance of producing cheap food for a growing population and commodities for export to generate foreign exchange. The need to either curb the political and economic power of major land owners and reduce political tensions resulting from the rural poor challenging their poverty, shaped these strategies. Land reform has usually involved the state compulsorily taking over land belonging to key property owners by offering some form of compensation. The intention has been to distribute land more widely and the incentive for enacting land reform was to reduce poverty by distributive or collectivist means. Land reform has been central to the promise of prosperity and at the crux of post-colonial reconstruction in Algeria and Tunisia (Bush and AbdelAal, 2004), and the attempt to dismantle the pre-1952 régime in Egypt (Waterbury, 1983).

4.24 Unlike other parts of the Third World the agriculture sectors in the MENA region could have benefited from high oil prices in the 1970s. The revenue that accrued from the sale of oil might have funded radical and far-reaching agrarian reform but it did not. Investment in agriculture across the Arab world slumped in the 1970s and 1980s as régimes imported food and consumer goods rather than producing them nationally (Bush and AbdelAal, 2004). Agricultural imports to North African countries have increased in the past decade (Table 10).

**Table 10. Agricultural imports to North African countries, 1990s, \$ billions**

	Average		1996	1997
	1990–1992	1993–1995		
Egypt	2.72	2.81	3.86	3.44
Algeria	2.38	3.03	2.78	2.76
Morocco	0.93	1.41	1.70	1.43
Libya	1.26	1.16	1.24	1.28
Tunisia	0.57	0.78	0.82	0.91

Source: Kurizig (1999).

4.25 In the mean time, agricultural productivity per worker fell across the region as did the number of people working in agriculture. Gross investment in agriculture between 1980 and 1992 fell in Egypt from 31 to 23 per cent; in Algeria from 37 to 28 per cent; in Morocco from 23 to 22 per cent; and in Tunisia from 28 to 26 per cent. The “boom” years of oil led growth, of economic opening or *infitah* were also years of the neglect of agriculture. While the MENA region has been more resistant to economic liberalization than other Southern regions, especially after 1989, mounting foreign debt, decaying national infrastructure and unsustainable agrarian systems increased the leverage of the international financial institutions to reduce state-led economic activity.

4.26 The World Bank and IMF, through policies of structural adjustment, exerted pressures to ensure that the state withdrew from economic activity. Urban riots in Egypt in 1977 led the country, for example, to delay implementation of IMF reform until 1991—although liberalization in agriculture began in 1986. Protests also led to concerns about the pace of reform in Algeria and Tunisia. The onward march of state withdrawal has been considerable although it remains unclear just what the consequences of withdrawal have been. Morocco has promoted the privatization of state, collective and religious endowed land; Algeria has sold “inefficient” state farms, reformed tenure arrangements and promoted interests of family farms. Algeria has also increased farm-gate prices and relaxed state marketing to improve retail outlets and the World Bank has offered support for further land tenure reform (Bush and AbdelAal, 2004).

## D. Land market policy

4.27 Land policy in the region has followed the national economic adjustment plans which embraced a market economy model at the end of the 1990s. Land modernization models have stressed private ownership of land and transformed land gradually to a market commodity. This is assumed to encourage investment and rationalize land use.

4.28 In Morocco, although the land market policy has been adopted, land regimes (legislation and practices) remain rigid and a source of many obstacles to free land transactions (see Bouderbala, 1997). Communal and other traditional regime (*guich* and *habous*) remain the main obstacles to land transactions.

4.29 Private lands (*melk*) are theoretically more suitable for a market policy system. However, in reality inherent features of these lands impede this process. These lands are characterized by multiple owners and lack of legal individual titles. The characteristics of land tenure are not in line with the modernization efforts.

4.30 In Algeria, there is no mention of market transactions in the land access rules<sup>49</sup> although a law promulgated in 1991 deregulated land transactions and made provision for public purchase of previously state owned lands. Such a law, however, is still pending (Terranti, 2003).

4.31 In Tunisia, land markets are a daily practice according to supply and demand market rules. But in reality these markets are not organized and lack appropriate regulations to yield the market value of land (TaiebNabil, 1995). The land market is viewed as one of the solutions to the land fragmentation process which impedes land development and agricultural productivity; the government considers that land markets can lead to land consolidation. Current investigations (Banque Mondiale, 2006; Rochegude, 2005) show that Tunisian legislation is favourable to delivery of titles and registration. Property transfers and taxes are not likely problematic. The problem of low transactions, however, is mainly due to registration constraints facing ordinary (small-scale) farmers. Registration is carried out exclusively in the capital and three ministries are involved in the process. Consequently, the registration process (*immatriculation foncière*) is seen as a major obstacle to the land market.

<sup>49</sup> The documents consulted show no reference to a land market.



## **E. Land policies: social vs. economic objectives**

4.32 Generally, land productivity in the region remains low although modernization efforts have sought to increase such productivity through diverse measures. Land tenure systems have been considered the major constraints to these endeavours. The main causes of inefficiencies in production are the small size of the land, the high number of parcels and the ownership system (Zaibet and Omezzine, 1998).

4.33 The last land reforms taking place in the region are seeking to render compatible agrarian structures to the modernization and development objectives. With the move towards the liberalization of the economy and the implementation of ERSAP in the 1990s land reforms were mostly oriented to meet international competition and market requirements. The privatization model and reforms in irrigated areas were implemented in Algeria, Mauritania, Morocco and Tunisia. Privatization is seen as an engine for economic development in so far as farmers have more incentives to increase land productivity. To meet this objective of optimal allocation of resources, land reforms have also encouraged consolidation programmes and control of fragmentation, conditions of better use of land and investment opportunities. Consequent to this market orientation, these policies have in common the development of land market mechanisms to ensure the mobility of land. The privatization of communal lands seems to cope with this policy orientation.

4.34 The market oriented model of agricultural development has had implications on land tenure and distribution. Facing policies in favour of market liberalization (removal of subsidies, market competition, imports etc.) farmers may behave in either of two ways: abandon small farms for the benefit of larger ones (concentration of land in the hands of the rich) or cling to land as a refuge, continuing the process of land fragmentation.

4.35 In Tunisia, specific strategies for agricultural development targeting small and medium farms have been designed. A first category consists of economically viable small and medium enterprises (*PME à caractère économique*) and a second category is family farms or farms with social character. This distinction is necessary to make provision for special characteristics of these farms and preserve these structures for social objectives.

## V. Land policy development and land administration

### A. Land policy development

5.1 Many African countries adopt participatory modalities in land policy development. The consultative mechanism used in Algeria, Morocco and Tunisia in the course of formulating plans and programmes for combating desertification and regenerating forests indicates serious institutional transformation towards multi-stakeholder participatory decision making for administering land resources.

- In Algeria the last land reforms were mostly interventionist, i.e. formulated by the government through ministerial decree laws. The reforms were implemented by *circulars* (government instructions) as a top-down model. This approach resulted in total indifference of farmers (Baci, 1999).
- In Tunisia the most recent land reforms were handled using a participatory approach. A relatively large number of public and private players took part in the process. Such a large number of stakeholders requires a coordination unit. Given the diverse problems related to land regimes, a dialogue process (large popular consultation) took place in 1998 and around 30,000 farmers participated in the debates. The objective of this consultation was to design specific measures aiming at putting an end to land fragmentation. A process favouring the development of viable farms was promoted based on: the protection of fundamental property rights as documented in the Constitution; the participation in these programmes on a voluntary basis; and the provision of incentives. The consultation resulted in recommendations which were included in what is called the “Agriculture Land Development Programme”. It is important to highlight the participatory process in designing such programmes on the basis of farmers’ experience, their initiative or that of their professional organization.<sup>50</sup>

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<sup>50</sup> See a case study on land reform (El Argoub, 2006).

## B. Land administration framework

5.2 The Constitution is the overarching legislation that governs relationships within the country and protects the rights of individuals. The constitutions of the countries in North Africa are similar.

- The Constitution of Algeria, Article 52, secures private property and guarantees the right to inherit. The Constitution recognizes *waqf*<sup>51</sup> properties and the foundations that manage *waqf*. Article 17 defines public property to include the underground, the mines and quarries, the natural resources of energy, and the mineral, natural and living resources in the various national maritime areas, waters and forests. It also includes rail, maritime and air transport, the mail and telecommunications as well as other properties defined by the law. Public property belongs to the nation.
- In Mauritania Article 15 assures that: 1) the right of property shall be guaranteed; 2) the right of inheritance shall be guaranteed; 3) the property of the *waqf* and its foundations are recognized; their use shall be protected by the law; 4) the law may limit the extent of the exercise of private property if the exigencies of economic and social development require it; 5) a process of expropriation may be instituted only when public utility demands it and after fair and prior compensation; and 6) the law shall determine the judicial rules for expropriation.

5.3 In addition to the Constitution, each country has several laws, executive regulations and decrees that govern land administration, management and development. In Egypt, for example, there are laws and regulations that fall into 10 different groups, where each cluster is responsible for an aspect of human settlements development and management.<sup>52</sup> The first group manages issues pertaining to urban development, followed by another three groups of laws and regulations governing infrastructure. The fifth and sixth groups of laws regulate owner–renter relationships, and property taxes, public notary and registering a property. Protecting the natural environment and managing human settlements are the seventh and eighth clus-

51 Real estate that generates revenues for charitable and religious purposes.

52 Prof. Abdulwahab Helmy devised this taxonomy in his background paper “Urban Planning and Institutional and Regulatory Development: Introduction to the Law and Local Administration,” General Organization for Physical Planning (GOPP), Ministry of Housing, Utilities and Urban Development, prepared for the Korean Research Institute for Human Settlements, Cairo, Egypt, July 2006, (unpublished research; text in Arabic).

ters. The 9<sup>th</sup> and 10<sup>th</sup> clusters are laws regulating practising the profession and other related laws and regulations.

## C. Institutional Setup

5.4 Land administration and management require a special institutional setup.

In Tunisia key authorities involved in the process of land reform and administration are:

- Agriculture Land Agency (*Agence foncière Agricole*, previously called *Agence de la réforme agraire*). In charge of land consolidation programmes;
- The Tunisian Union of agriculture and fisheries (*Union Tunisienne de l'Agriculture et de la pêche*): plays an active role in advising farmers in the process of land reform;
- Regional and local commissions;
- Land (real estate) court (*Tribunal immobilier*): taking care of land registration;
- Land property conservation bureau: registration of property transformation according to land management plans;
- Ministry of State domain and land affairs: since reforms take place mostly on state owned lands (nationalized lands or previously part of the state domain), the Ministry in charge would offer the Land to the Agency in order to implement the consolidation and distribution programmes;
- Topography and Cartography Agency: to realize plots according to land distribution and management and provide definite maps.

The multiplicity of institutions dealing with land administration requires a unique relationship to facilitate the registration process mainly for small-scale farmers. All these institutions are summarized in Table 11.

**Table II. Current players in rural land management in Tunisia**

Land category (status)	Key players	Role
State domain	Land tribunal Ministry of State domain Office de Cartography et de la topographie Bureau de la restructuration des terres domaniales Office des terres domaniales Agence foncière agricole	Land registration Follow up of legislative procedures State lands redistribution and management Management of state lands Irrigated public and private lands
Private lands Registered lands	Land tribunal Ministry of State domain Office de Cartography et de la topographie	Land registration Follow up of legislative procedures Correct « stagnated » titles
Lands with notary status	Notary public	Real rights Land use
Land with possession certificate	Agence foncière agricole	Consolidation
Collective lands Farming and fruit trees	See registered lands	
Pastoral lands	Forest General Directorate (DGF)/registration service Forest users associations	forest regime forest domain use of conceded rights
Land to be restructured	Forest General Directorate (DGF)/registration service Forest users associations	mapping and enforcement of forest regime
Terres habous	State domain Ministry Users of habous lands Agence foncière Agricole	Regulation consolidation

Source: Rochegude (2005).

5.5 In Mauritania, land administration policy deals with land division, cadastration and dispute settlement. The 1984 decree involves regional land commissions to divide and distribute collectively held land among newly formed cooperative members. These commissions are headed by the *préfet* and include a magistrate of the tribunal of the department, the commandant of the local police and the head of the regional agricultural service. Furthermore, the 1983 Land Law and 1992 Constitution made provision for local land offices in a few towns in the river valley to take care of the

national cadastre and supervise individual private property rights (Bruce, J. W, 1998).

## **D. Customary-based modalities of Land Administration**

5.6 Traditional practices related to land resources and the living forms that they support are not new to Arab culture. This is exemplified by the *hema* system of rangeland,<sup>53</sup> strictly applied in the region before and after Islam and in Tunisia in 1240. Other examples are the forest reserves, *harags*, in mediaeval Egypt; and the oases of Morocco and Andalusia. The ancient Oriental and Greco-Roman religions took it for granted, that animals and plants, and other natural objects have spiritual existence just like humans and therefore deserve respect. In Islam, hunting is prohibited during certain months of the year<sup>54</sup> “Al-Ash-hur Al-Hurum” (Abdelrehim et al., 2005).

## **E. Land dispute resolution**

5.7 The coexistence of religious, traditional and civil legislation is among the reasons for land disputes. Many North African countries lack an updated, full, model system for land registration including cadastral and other information necessary to facilitate land management and land transactions. This absence is also among the reasons for disputes over land. The governments of North Africa depend on direct negotiation, arbitration and mediation in an attempt to solve conflicts over disputed land.

5.8 Disputes over land are usually handled by customary dispute settlement mechanisms, such as local committees (in Mauritania) or land tribunals in other cases. The complexity of land settlement procedures has led to lengthy dispute decisions. Ben Saad (2003) reviews cases in Tunisia of land division among heirs or landholders of communal lands and sorts out conflict settlement procedures and difficulties:

- A land division dispute which took place in the south of Tunisia in the 1980s was resolved after 5 to 10 years. Conflicts arose over

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53 A system that restricted the timing, frequency and intensity of grazing, and is instrumental in the maintenance of the rangeland.

54 These are the four sanctified months in which battles between Arab tribes were prohibited in the days of the Holy Prophet. The first of these months is ZULQ'ADAH, followed by the 12th month of Hijri calendar that is the month of Pilgrimage (Hajj).

pastoral lands in communities specializing in livestock, and over water use in farming communities.

- The second case was in the 1990s, again in the South, and concerned communities where the members are literate but where conflicts have lasted a long time. The reasons according to the author are: absenteeism, lack of interest of members who engage in non-farm activities or cases of *habous* land where the land tribunal did not authorize division until 1995.
- In Mauritania the land tribunal is the last resort in pastoral land disputes where local committees take care of these issues. Conflicts over land of international dimensions such as the one between Mauritania and Senegal are settled at international level.

## VI. Lessons Learned and Best Practices

### A. Land policies and the Legal System

6.1 The countries in the region became independent in the 1950s and the 1960s. Feudalism was often linked to foreign occupation. Planned economy and state capitalism were the paths to economic development and financial independence. Most North African countries adopted import-substitute industries (ISI) as a means for development, industrializing the country, diversifying the economic base and absorbing landless agricultural labour. The governments of many North African countries conducted land reform through successive decrees setting ceilings on land ownership, as mentioned earlier, to weaken the political powers of big property owners. The result of these actions was achieving some social equity by availing the landless access to wealth (land). However, these actions also contributed to inefficient use of land.

6.2 In the past two decades the scenario has changed. Countries in the region have adopted neo-liberal economic policies. This means transforming the role of government from a benevolent, egalitarian state to a state that is only a regulator. It also meant replacing a planned economy with a free market mechanism. This is easier said than done. New laws were passed to enable the private sector (local and foreign) to own/use land for developing production and services establishments. In some of the countries, such as Egypt and Tunisia, new constitutional amendments were passed to facilitate the processes of attracting foreign investments and assure capital accumulation.

6.3 Some of the laws, regulations and decrees passed in the 1950s and 1960s in much of North Africa still exist alongside new laws that promote free market mechanisms. For example in Egypt, many dwellings developed in the 1960s are still under rent control legislation from 1968. In the late 1990s, the Egyptian Government passed a law enabling landlords to rent out newly developed dwellings at market rates. The coexistence of these two laws is not conducive to proper real estate market mechanisms. In Tunisia,



some laws dating back to 1935–1939 are still applicable that do not suit today's economic reality (RocheGude, 2005).

6.4 Land management practices are often viewed and conducted from a sectoral point of view, and therefore cannot assure sustainable use of land resources.

## **B. Land Policy Formulation and Land Administration**

6.5 Land policies need to be formulated in a holistic manner and not a sectoral one. The success of some North African countries in the processes of afforestation and combating desertification and of land policy formulation is related to multi-stakeholder participatory planning processes.

6.6 Participatory, consultative planning for land use and management in the region has proved to be an appropriate modality for decision making that preserves land resources and assures equity and efficiency.

6.7 Participation should not be an end *per se*, but rather a means for sound land policy formulation and management. The problem with participatory planning in communities of tribal structure and remarkable adult illiteracy is the dominance of myth and misconception that enable one group to dominate another and to exercise power over them (Dugger and Sherman, 1994)<sup>55</sup> Thus, for sustainable use of land resources, North African countries have to initiate a process of institutional transformation based on cultural change, which is among the reasons for planning. This is possible through efforts to enlighten the public and its representatives and advocates, with the hope of eventually enabling the citizens to control their destiny. One proposed action in this regard to use quantitative and qualitative indicators for participation, such as the percentage of women engaged in the decision-making process, inclusion of all stakeholders, and stakeholder analysis of who benefits, who incurs the cost of the proposed land development, etc.

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55 Enabling myths are those that enable one group or individual to get others to do what is wanted of them, even when it is not in the interest of the dominant group or individual.

6.8 In many cases laws and regulations enable negative practices related to land use. For example, many eminent domains serve the interests of specific groups at the expense of the others.

6.9 This reinforces the need for monitoring and evaluation of land policies as well as environmental impact assessment (EIA), including social impact assessment (SIA) for projects and strategic environmental assessment (SEA) for policies and major decisions that determine destinies.

## **C. Best practices**

### ***1. Combating desertification***

6.10 Tunisia, Morocco and, to certain extent, Algeria capitalized on the available funds and international assistance to put in place their NAPs, and succeeded in mainstreaming the issue of combating desertification and managing drought into the fiscal plans and strategies for national development.

6.11 In the processes of formulating NAPs, these three countries transformed planning for land from a sectoral approach into more holistic, comprehensive, integrated planning exercise. This approach made room for the participation of stakeholders' representatives to address issues such as gender empowerment and equity. The experience of participation in the formulation of the NAP can be useful to land policy development and implementation processes.

### ***2. Upgrading informal settlements***

6.12 The success of upgrading informal urban settlements comes from ensuring that the process of upgrading uses a bottom-up approach. It is not a process of demolishing dilapidated buildings and constructing new ones. Rather, it is a process of building the capacities of the institutions and the people using participatory *modus operandi* that led to partnerships and established an environment of trust conducive to enabling the people to be responsible.

6.13 In the successful upgrading projects of Ismailia and Cairo there often was a champion. Ms Mubarak, the first lady of Egypt, is the chairperson of the Egyptian Red Crescent Society responsible for upgrading Zenhom, Cairo; she is also the chairperson of the Integrated Care Society that mobilized resources for upgrading Ezbet and Arab El-Walda, Helwan, Cairo. In addition, successful upgrading projects of Ismailia, Aswan and Cairo started by building trust through local initiatives. Local initiatives are small, tangible, and highly visible upgrading projects that the residents themselves on a voluntary basis instigated and directed. The community agrees to solutions via direct meetings among citizens, community development agencies, NGOs and the local administration. According to those working on these projects, knowing the community is of utmost importance to identify entry points and gain the trust of the locals. Knowing the communities means involving local communities in the analysis of development and related service issues; this is essential to the optimal solution of problems. Municipal investments are more likely to succeed and win public support if they are responsive to the articulated needs, concerns, and preferences of service users. The third element for a successful upgrading process is to share information. Participation generates information needed for proper decision making. It also helps verify information on issues and magnitude of order. GTZ introduced participatory budgeting. Participatory action in budget planning involves the local community, the local administration, and the private sector directly in the budget planning process. In this way all stakeholders allocate public funds effectively and at a lower cost to satisfy local needs. Sector departments, in this case, can better coordinate their efforts.

### **3. Participation in land policy formulation and administration**

6.14 The experience in Tunisia of running a participatory procedure in which a relatively large number of public and private stakeholders take part in land policy formulation and management is among the best practices in this process. Given the diverse problems related to land systems, a dialogue process (large popular consultation) took place in Tunisia in 1998 and around 30,000 farmers participated in it. This resulted in recommendations to be included in the national plans.

## VII. Needs Assessment: Challenges and Gaps

### A. Framework and Institutional Setup for Land Policies and Management

7.1 North African countries have a number of laws, executive regulations and decrees, in addition to several sources of legislation (traditional, religious and civil). These, as mentioned earlier, are sometimes sources of conflict, and the basis for a negotiated settlement, such as in the case of *habous* sub-division. There is need for a consolidated framework for land policy formulation and administration.

7.2 The legal framework in North Africa is, to certain extent, conducive to managing land and developing human settlements. However, there are a number of gaps. There is also institutional overlap between ministries and agencies involved in managing human settlements, agriculture, irrigation, local administration, environment etc. The source of these overlaps lies within the originating legislation. Second, coordination at the top level of policy making faces fewer problems than decision making and coordination with respect to implementation, enforcement and monitoring, at the local levels. Local administrations face challenges that arise from the amount of coordination required to attain comprehensive and integrated land management activities, which is enormous because of the cross-sectoral nature of these issues, as well as the competing economic activities for land resources.

7.3 Despite attempts to decentralize and de-concentrate powers to local administrations, some North African countries have not achieved this for several reasons. First is the geography, such as the case of Egypt, where the Nile River is almost the sole source of fresh water and therefore requires central management. Wherever there is water, there is life and thus the demand for land resources. Another reason for delayed decentralization is the fear of widening regional disparities. Regions blessed with resources are bound to get richer, while other regions will continue to lag behind. There-

fore for social solidarity and equity, financial, administrative and political decentralization is not expected in the near future.

7.4 Adult illiteracy is real a barrier to understanding the legal system and procedures. Many residents and citizens of North Africa therefore are not able to defend their ownership of land. Furthermore, it is not possible for marginalized population groups, such as women and the poor, to access natural resources and fully participate in the decision-making processes. These groups neither have the legal knowledge nor the funds to hire a lawyer to defend their interests. NGOs in North Africa are of limited capacity, and lack the means for proper networking to advocate the interests of marginalized populations.

7.5 Many constitutions in the countries in the region use the public interest as a criterion to justify eminent domain actions. The use of public interest as a measure for assessing what the people really require is not always appropriate. For example, the Egyptian Center for Housing Rights (ECHR) claims that upgrading informal areas serves the interests of the investors, business persons and other members of the elite. According to ECHR, two ways are used to upgrade informal urban areas. First, if the land is publicly-owned, then the government clears it and compensates the dwellers with public housing on the fringe of the metropolitan area. Second, if the land has owners the government adopts an eminent domain<sup>56</sup> action using Law No. 10/1992 that gives the Prime Minister the power to evacuate the houses for projects in the public interest.<sup>57,58</sup> Some North African countries have embraced a consultative, participatory mechanism for land policy formulation and management. Examples of this are Algeria, Morocco and Tunisia as they formulated their NAPs, and Ismailia, Egypt, when the local administration embarked on upgrading informal settlements.

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56 Eminent domain is the power of a government entity to take private real estate for public use, with or without the permission of the owner.

57 Egyptian Center for Housing Rights (ECHR), Egypt's Cabinet to Dispossess 155 Thousand People State Property and Public Benefit: State's Pretexts to Displace Citizens,' <http://www.echr.org/en/hc/02/010620.htm> (accessed August 15, 2007).

58 The residents of nine buildings refused to evacuate their homes and shops in Abbasiya within the scheme to develop the third route for the subway. They argued that the compensation which the Governorate of Cairo set for their properties was unfair. The residents resorted to the courts to settle the matter. The plaintiffs argued that the Governorate of Cairo assessed the compensation at £E2,000 per square metre, while the market value in that area is about £E20,000 per square metre. The Governorate disconnected all utilities in these buildings to force the residents to evacuate—an estimated 61 per cent of the occupants in Abbasiya Square have evacuated their residences and shops, and received a sum of £E2.5 million (approximately \$450,000).

## **B. Information and Monitoring of Land Resources**

7.6 Proper land policy formulation and management/administration require timely information. Municipalities and central agencies responsible for land policy formulation and implementation often lack continuous, valid, reliable information conducive to proper decision making.

7.7 Geospatial data in many North African countries are available, yet scattered and sometimes incomplete or unreliable and invalid. These geospatial data should be compiled, organized and verified, and made accessible for all to facilitate land policy development and implementation. This will avoid market imperfections and conserve natural resources.

7.8 Many central and local public bodies, and some private sector companies, are preparing digital maps using geographic information systems (GIS) in land administration and development. This is a step towards availing proper, valid and relevant information necessary for efficient and equitable land markets. However, there are a number of technical impediments to this trend. The obstacles include the definitions of geospatial data, such as scale, projections, level of detail etc. They also include platform and compatibility problems; in some cases within the same country a number of GIS software are used that are neither compatible nor comparable. Furthermore, some institutional difficulties with respect to defining national boundaries make these data unusable internationally. Finally, efforts should be made to verify the data on the ground. This will require labour and equipment, including the use of global positioning systems (GPS).

## **C. Human Resources for Land Management and Administration**

7.9 Proper human resources are required for legal and institutional reform and for all the steps in strategy, policy, plans, programmes and projects for land resources development, use and conservation.

7.10 The public bodies in many North African countries are responsible for the development of the various economic sectors. In addition to managing human settlements, these institutions need new staff who are capable of

utilizing modern planning technologies in land policy formulation and land management. These technologies include the use of GIS models for spatial analysis and regional development and the use of space syntax analyses to produce better maps of cities.

7.11 These new staff need training in strategic thinking; understanding the dynamics of markets; and to be able to develop a constructive discourse with the private sector and non-government entities. They must develop their skills and capacities in the use of economic and social modelling, goal articulation and targets setting; and alternative scenarios for development and evaluation. They need training in impact assessment (economic, social and environmental) at the strategic and tactical levels.

7.12 These staff members are responsible for generating the information necessary for decision making. Their responsibilities extend to transferring their knowledge and information to other development partners.

7.13 There is a need to retain qualified, trained cadres in government agencies responsible for land management and administration. Often, trained qualified staff leave these agencies to join the private sector for higher salaries. For example, the General Organization for Physical Planning (GOPP), which is responsible for formulating national and regional plans, and master plans of human settlements in Egypt has been building the capacity of its staff over the past decade by sending many of them to Sweden and UN-Habitat for specialized training in GIS and use of satellite images, urban indicators and so forth. Most of these trained individuals are currently on leave and engaged in projects in Saudi Arabia and UAE, and with private Egyptian planning firms and donor-supported projects in several ministries. This is good for the economy at large, but GOPP is still in need of capacity building to properly fulfil its duties. This is especially so since the organization is now responsible for several initiatives including planning for Greater Cairo Region 2050, and elaborating strategic master plans for about 200 cities and towns, and about 26 thousand villages. Morocco and Tunisia are not different. Government agencies are losing their qualified staff to the private sector, and are unable to attract new, qualified personnel in the field of information technology (IT), particularly in land management.

7.15 Members of civil society organizations and private sector companies also need capacity building. Major landholders in rural communities donate monies to mosques and to the poor, but few of them pay for educational and health services. They view this as the responsibility of the government. Private sector leaders need to understand their corporate social responsibilities, particularly in coastal areas and industrial estates.

## **D. Financing Land Policies**

7.15 Mismanagement and inefficient use of land resources is a direct outcome of malfunctioning land market mechanisms, as indicated in Section IV-D. One of the reasons for market malfunctioning is insecure, unacknowledged property rights. A fundamental condition for the efficient operation of land markets is to have well-defined, exclusive, secure, transferable and enforceable property rights over land.

7.16 Financing land policies and management is central to these processes. Financing land policies and management is a real challenge. Some governments are short of funds to implement schemes for land management, enforce laws and plans for land use etc.

7.17 One of the ways in which to meet the above challenge is to acknowledge property rights and secure tenure to achieve economic growth and social equity, and to protect, regenerate and conserve the environment. Securing tenure can lower inflation rates; set land values to real market prices, which avails credit to landholders to finance their businesses; and increase government revenues that can finance schemes for land management and development.



## References

- Abdelrehim, Ahmed et al. North Africa. Background report prepared for Africa Environmental Outlook 2, Cairo, Egypt, CEDARE, 2005.
- Abu-Lughod, Janet and Richard Hay Jr. *Third World Urbanization*. London, Methuen and Co. Ltd., 1977.
- Agence Foncière Agricole. La réforme Agraire en Tunisie. Conférence internationale sur la réforme agraire et le développement rural (ICARRD), 2006.
- Akesbi N., D. Benatya et N. Elaoufi. **Les implications structurelles de la libéralisation sur l'agriculture et le développement au Maroc**. Colloque international : enjeux économiques, sociaux et environnementaux de la libéralisation commerciale des pays du Maghreb et du proche Orient. Rabat, Maroc, 19–20 Octobre 2007.
- Al Atiri, R. Les efforts de modernisation de l'agriculture irriguée en Tunisie. In: Hammami, A., M. Kupper et A. Debbarh, eds., *La modernisation de l'agriculture irriguée: Actes du Séminaire premier séminaire euro-méditerranéen*. Rabat, 2004.
- Arif, Sherif and Maria Sarraf. *Middle East and North Africa Region Environment Strategy Update 2001–2005*. Washington, DC, The World Bank, December 2001.
- Bachta, M.S. et B. Talbi. Productivités et allocation des facteurs en agriculture irriguée et pluviale en Tunisie: une comparaison. In Bachta et al., eds., *Les instruments économiques et modernisation des périmètres irrigués*. Kairouan, Tunisie, 2005.
- Baci L. Les réformes agraires en Algérie. Options Méditerranéennes. CIHEAM, vol. 36, 1999.
- Banque Mondiale. *Revue Agricole en Tunisie. (Le foncier rural)*. Washington, DC, Banque Mondiale, 2006.
- Ben Saad, Abdallah. 2006. La femme est elle simplement désavantagée ou totalement exclue lors du partage des biens fonciers dans la campagne tunisienne. Colloque international "At the frontier of land issues". Montpellier, France, 2006.
- Ben Taieb, Nabil. Le marché foncier à travers des cas observés dans le gouvernement de Sousse. Mémoire de Mastère. FSJPS, Tunis, 1995.

- Benaissa, A. L'évolution de la propriété foncière à travers les textes et les différents modes d'accès à la propriété foncière (land property system in Algeria). 2nd FIC Regional conference, Marrakech, Morocco, December 2–5, 2003.
- Benbekhti, A. Saifi and B. Boualem. *Algérie: de la réforme agraire au développement rural, l'évolution des interventions en milieu rural*. FAO-CIRADR, Porto Alegre, Brésil, 2006.
- Ben-Derradji, M. Problèmes de dégradation de l'environnement par la désertisation et la déforestation: impact du phénomène en Algérie. *NEW MEDIT* 4, 2006.
- Benmouffok, B. Efforts de l'Algérie en matière d'économie de l'eau et de modernisation de l'irrigation. In A. Hammami, M. Kupper et A. Debbarh, eds., *La modernisation de l'agriculture irriguée*. Kairouan, Tunisie, 2005.
- Bohrer, Kelvin. Mauritania country profile. In J.W. Bruce ed., *Country profiles of land tenure: Africa, 1996*. Madison, Wisconsin, Land Tenure Center, University of Wisconsin-Madison, 1998.
- Bouderbala, N. La modernisation et la gestion du foncier au Maroc. *Option Méditerranéennes*, Ser. A, 1997.
- Bouderbala, N. Le morcellement de la propriété et de l'exploitation agricole au Maroc. *Cahiers Options Méditerranéennes*. 1999.
- Bruce J.W. *Country profiles of land tenure: Africa, 1996*. Madison, Wisconsin, Land Tenure Center, University of Wisconsin-Madison, 1998.
- Bush, Ray and Mohamed AbdelAal. Land and conflict in the Middle East and North Africa. Mediterranean Programme, 5<sup>th</sup> Mediterranean Social and Political Research Meeting, Workshop 11, Florence, 24–28 March 2004.
- Capacity 21 Unit. *Egypt, environmental profile*. Cairo, Egypt, Egyptian Environmental Affairs Agency and United Nations Development Programme, 2001.
- Consultative Group on International Agricultural Research*. Helping Moroccan women preserve the argan tree at the gateway of the Sahara. IDRC Project Number 978602. Washington, DC, CGIAR, 2000. Available at [www.idrc.ca/reports/read\\_article\\_english.cfm?article\\_num=659](http://www.idrc.ca/reports/read_article_english.cfm?article_num=659). (Accessed 19 February 2008.)
- de Soto, Hernando. *The other path: The invisible revolution in the Third World*. London, I. B. Tauris, 1989.

de Soto, Hernando. *Dead capital and the poor in Egypt*. Cairo, Egypt, Distinguished Lecture Series 11. A Publication of the Egyptian Centre for Economic Studies, 1997. Available at <http://www.eces.org.eg/Publications/Index3.asp?l1=4&l2=3&l3=11>.

de Soto, Hernando. *The mystery of capital: Why capitalism triumphs in the West and fails everywhere else*. New York, Random House, 2000.

Dia, M.A. 1995. Où en est la Mauritanie dans la protection de l'environnement? *Environnement africain*, Volume 1–2. pp. 37–38, 1995.

Direction Générale des forêts. Rapport PNF, Mai 1999.

Dugger, William D. and Howard J. Sherman. Comparison of Marxism and institutionalism. <http://www.liberte-algerie.com/edit.php?id=141473&titre=Quand%20Madrid%20renfloue%20les%20caisses%20d%E2%80%99Al-Qa%C3%AFda> *Journal of Economic Issues*, Volume 28, No. 1 pp. 101–128, 1994.

El-Beltagy, Adel. Agricultural development and food security in North Africa: constraints and opportunities. Assuring Food and Nutrition Security in Africa By 2020: Prioritizing Action, Strengthening Actors, and Facilitating Partnerships. Kampala, Uganda, 1–3 April 2004.

El-Beltagy, Adel. Central and West Asia and North Africa: a regional vision. International Center for Agricultural Research in the Dry Areas, 2000.

El-Bagouri, Ismail Hamdi. Land Degradation Control in North Africa. International Workshop on Climate and Land Degradation, Arusha, Tanzania, 2006. Available at <http://www.wamis.org/agm/meetings/wocald06/S4-ElBagouri.pdf>. (Accessed 23 Jun. 2008.)

El-Gueddari, A.B.S. Economie d'eau en irrigation au Maroc: acquis et perspectives d'avenir. In A. Hammami, M. Kupper et A. Debbarh, eds., *La modernisation de l'agriculture irriguée*. Rabat, 2004.

El-Kholei, Ahmed. Land tenure: A tool for controlling pollution and improving environmental quality in informal settlements. Proceedings of the Conference on Land Tenure and Urban Management, GOPP, League of Arab States, AUDI, UNCHS and ESCWA, 2001.

El-Kholei, Ahmed. Transformations in popular attitude, customs and beliefs: A framework for the development of poor rural settlements in Egypt. In the Proceedings of the Conference on Urban-Rural Linkages and Land Tenure, GOPP, League of Arab States, Arab Urban Development Institute, UNCHS and ESCWA, 2005.

El-Kholy, Mohamed. The Residents of nine properties in Abbassya refuse to evacuate for the third subway line. *Al Distour*, (The Constitution Newspaper), 20 August 2007, (text in Arabic).

Elloumi, M. et A.M. Jouve. **Restructuration territoriale et réorganisation foncière**. In *Agriculture et alimentation en Méditerranée: les défis de la mondialisation*. CHIEAM-IRESA-KARTHALA. Paris, France, 2004.

Elloumi, M. et A.M. Jouve. *Bouleversements fonciers en Méditerranée. Des agricultures sous le choc de l'urbanisation et des privatisations*. Paris, France, Karthala-Ciheam, 2003.

Elloumi, M. et A.M. Jouve. **Restructuration territoriale et réorganisation foncière**. In M.S. Bachtta et G. Gherzi, eds., *Agriculture et alimentation en Méditerranée: les défis de la mondialisation*. CIHEAM-IRESA-KARTHALA, 2004.

Fahred Moussa, M. L.. Hétérogénéité et Homogénéité du droit foncier. In *Dynamique des populations, disponibilité en terres et adaptation des régimes fonciers: le cas de la Tunisie*. Paris, CICRED- FAO, 2006.

Fahred Moussa, M.L.. L'Etat et l'Agriculture en Tunisie: Essai sur l'intervention de l'Etat dans le secteur agricole. *Bibliothèque de droit de sciences politiques et économiques*, Tome XII, Tunis, 1988.

FAO Food and Agricultural Organization of the United Nations. *State of the World's Forests*. FAO, Rome, Italy, 1997. Available at <http://www.fao.org/docrep/W4345E/w4345e0f.htm#TopOfPage>.

Flood, Joe. Urban resources: Analysis of urban indicators,. The Global Urban Observatory Databases, Monitoring the Implementation of the Habitat Agenda, April 2001. Available at [http://www.unhabitat.org/programmes/guo/guo\\_analysis.asp](http://www.unhabitat.org/programmes/guo/guo_analysis.asp). (Accessed March 2004.)

Gharbi, M. L'intégration de l'aspect foncier dans les stratégies de la réduction de la pauvreté et développement durable. Atelier régional. Washington, DC, The World Bank, Avril 2002.

Grimes P. and Kentor, K. Exporting the greenhouse: Foreign capital penetration and CO<sub>2</sub> emissions 1980–1996, *Journal of World Systems Research*, Volume 9, number 2 pp. 261–275, Summer 2002. <http://jwsr.ucr.edu/archive/vol9/number2/pdf/jwsr-v9n2-grimeskentor.pdf>.

Hamdi El-Bagouri, Ismail. Land degradation control in North Africa. International Workshop on Climate and Land Degradation, Arusha, Tanzania, 2006. Available at <http://www.wamis.org/agm/meetings/wocald06/S4-ElBagouri.pdf>. (Accessed 23 January 2008.)

- Hammami, A., M. Kupper et A. Debarh. *La modernisation de l'agriculture irriguée*. Actes du séminaire Euro-Méditerranéen. Maroc, 2004.
- Handloff, Robert E. ed. *Mauritania—Farming in Mauritania: A country study*. Washington, DC, GPO for the Library of Congress, 1988. Available at <http://countrystudies.us/mauritania/49.htm>. (Accessed 17 February 2008.)
- Hans-Werner, Wabnitz. The Code pastoral of the Islamic Republic of Mauritania: return to the sources. Colloque international At the frontier of land issues. Montpellier, France, 2006.
- Helmy, Abdulwahab. Urban planning and institutional and regulatory development: Introduction to the law and local administration. Background paper. General Organization for Physical Planning (GOPP), Ministry of Housing, Utilities and Urban Development, prepared for the Korean Research Institute for Human Settlements, Cairo, Egypt, July 2006, (unpublished research; text in Arabic).
- IUCN-EGA. North Africa Programme Phase 1. Final Summary Report, January 1996–April 1998.
- Jouve A.M. Cinquante ans d'agriculture marocaine. In *Du Maghreb au Proche-Orient, les défis de l'agriculture*. Paris, L'Harmattan, pp. 51–71, 2002.
- Lim, Gill-Chin. 1987, Housing policies for the urban poor in developing countries. *Journal of American Planning Association*, Volume 53, number 2, pp. 176–185, 1987.
- Kurizig, Michael. Imports rising in Middle East and North Africa. World Agriculture and Trade, Agricultural Outlook, Economic Research Service/United States Department of Agriculture, June–July 1999.
- Metz, Helen Chapin. Land use and irrigation. In Helen Chapin Metz, ed., *Libya: A country study*. Washington, DC, GPO for the Library of Congress, 1987. Available at <http://countrystudies.us/libya/63.htm>. (Accessed 19 February 2008.)
- Ministère de l'Agriculture (Tunisia). 9ème plan du développement économique et social (1997–2001).
- Ministère de l'agriculture et des ressources hydrauliques (DGF) and FAO. 2007. Rapport final: analyse du processus et formulation du programme forestier national en Tunisie, Juin 2007.

Ministère de l'environnement et de l'aménagement du territoire. Programme d'action national de lutte contre la désertification. Note de Synthèse. Tunisie, 1998.

Ministry of Agriculture and Land Reclamation. *Agricultural Census 2000*. Cairo, Egypt, 2000.

Nasr, N. et M. Hamdi. Dynamique des législations du foncier et de l'eau pour un accès équitable et une gestion durable des ressources en Tunisie. Stakeholder Workshop on Equitable access to land and water resources. UNDP Dry Land Development Center, Beirut, November 28–30 2005.

Ngaido, T. Institutional options in rangeland management in the Machrek and Maghreb countries. International conference on policy and institutional options for rangeland management in dry areas, 2001.

Oweis, T.Y. and A.Y. Hachum. Improving water productivity in the dry areas of West Asia and North Africa. In: J.W. Kijne, R. Barker and D. Molden, eds., *Water productivity in agriculture: limits and opportunities for improvement*. CABI-Colombo, 2003.

Quan, Julian. *The importance of land tenure to poverty eradication and sustainable development in Africa*. London, Department for International Development/Natural Resources Institute, 1997.

Rady, Mona Samir. The relationship between accelerating globalization and the expansion of the informal sector in the cities of developing countries. M.Sc. thesis, unpublished research. Shebin El-Kom, Menofia, Department of Architecture, Faculty of Engineering, Menofia University, 2003.

République Tunisienne. La réforme Agraire en Tunisie. Conférence internationale sur la réforme agraire et le développement rural (ICARRD), FAO, 2006.

Rochegude, Alain. Etude sur les questions foncières en Tunisie. Rapport de consultation. Ministère de l'Agriculture et des ressources hydrauliques, 2005.

Salama, Waheed and Andrew Grieve. The Zaranik experience. *Sandgrouse* (OSME), Volume 18, p. 14, 1996.

Selmi, S. and Elloumi, M.. Tenure foncière, mode de gestion et stratégies des acteurs: le cas des parcours du centre et du sud tunisien. Vertigo, Hors Série 4, Chapitre 7, 2007.

Shehata, Salwa Mostafa El-Sayed. The relationship between solid waste management and Land uses in informal areas: the case of Alexandria. Ph.D. disser-

tation, unpublished research. Shebin El-Kom, Menofia, Department of Architecture, Faculty of Engineering, Menofia University, 2002.

Sorour, Ayman. Explosive remnants of war in North Africa. *Journal of Mine Action*, 2006. Available at <http://maic.jmu.edu/Journal/10.2/focus/sorour/sorour.htm>. (Accessed 13 January 2008.)

Terranti, S. 2003. La privatisation du foncier agricole en Algérie: plus de dix ans de débats silencieux. Communication au Fourth pan african programme on land and resource tights workshop. Cape Town, May, 2003.

United Nations. *World Population Prospects: The 2004 Revision*. Department of Economic and Social Affairs, Population Division, United Nations Secretariat. New York, United Nations, 2005. Available at <http://www.un.org/esa/population/publications/WPP2004/wpp2004.htm>.

United Nations. *World Population Prospects: The 2007 Revision*. Department of Economic and Social Affairs, Population Division, United Nations Secretariat. New York, United Nations, 2007

United Nations Development Programme. A Global Capacity, Development Network on Poverty and Environment Linking Participatory Research, Dialogue and Action; Poverty and Environment Initiative, Partnerships to Fight Poverty and Sustain the Environment. Availabe at <http://www.undp.org/wssd/docs/PEI-Brochure.pdf>.

United Nations Development Programme. The Millennium Development Goals in Arab countries: toward 2015. UNDP, 2003.

United Nations Environment Programme. *Africa Environment Outlook: Past, Present and Future Prospects*. Nairobi, UNEP, 2002.

UN-Habitat. Statistics, website. Available at <http://www.unhabitat.org/programmes/guo/statistics.asp>. (Accessed March 2004)

United Nations Sudano-Sahelian Office. *Women and desertification in Mauritania*. UNSO, 2001. Available at [www.undp.org/seed/unso/women/](http://www.undp.org/seed/unso/women/). (Accessed 19 February 2008.)

Walton, John. Urban protest and the global political economy: The IMF riots. In Michael Peter Smith and Joe R. Feagin, eds., *The capitalist city*. Cambridge, Massachusetts, Ideas, a Basil Blackwell series, 1989.

Waterbury, J. *Egypt burdens of the past, options for the future*. Bloomington and London, American University Field Staff in Association with Indian University Press, 1978.

Waterbury, John. *The Egypt of Nasser and Sadat: The political economy of two regimes*. Princeton, New Jersey, Princeton University Press, 1983.

United Nations. *World Urbanization Prospects*. New York, UN Department of Economic and Social affairs, 2004.

World Bank. *World development indicators 2007*. Washington DC, The World Bank, 2007.

World Resources Institute. *Forests, grasslands and dry lands*. Earthtrends: Environmental Information Portal, <http://earthtrends.wri.org/>, WRI, 2005.

Zaibet L. and A. Omezzine. 1998. Determinants of technical efficiency in the Tunisian Olive Production. *Agricultural Science Dirasat Journal*, Vol. 25, issue 1, pp. 10–15, 1998.

Zaibet L., M.S. Bachta et H. Ben Salem. **Production structure and cost efficiency of irrigated agriculture: a shadow cost approach**. In Bachta et al., eds., *Les instruments économiques et modernisation des périmètres irrigués*. Kairouan, Tunisie, 2005.



## Annex I: Country Variation/Similarities

The North African Region comprises the following countries: Algeria, Egypt, Libya, Mauritania, Morocco, SADR and Tunisia.

Country	Salient country features	Colonial legacy	Land tenure	Population density (persons/km <sup>2</sup> )	Forms of access to land	Availability of land resources	Fragility
Algeria	Only 3 per cent of total area is arable land 39 per cent of population is rural	French occupation (1830–1962)	Customary, Statutory, Islamic. Some land is not titled	13.8	The government seized all lands in the possession of the colonialists State control over land Landholders have usufructuary rights, and State retains the ownership of land	Ample amount of land available for sensitive agricultural production, and other economic activities, such as mining, manufacturing, tourism etc. The major constraint is fresh water resources, infrastructure and social services to attract population to areas outside the limited arable land	Desertification and drought Coastal erosion Deforestation Threats to biodiversity
Egypt	Only 3 per cent of total area is arable land 56 per cent of population is rural	British protectorate (1882–1923) though British troops left Egypt in 1954	Customary, Statutory, Islamic. Some land is not titled	74.8	Adverse possession Setting ceiling on ownership of agricultural land, and distributing excess land to the landless Eminent domain actions to implement projects in the public interest Selling state land and farms Allocation of land for cooperatives/major investors, and the like	Same as above	Desertification and drought Coastal erosion Adverse impact of climate change on water resources, coastal areas and biodiversity

Country	Salient country features	Colonial legacy	Land tenure	Population density (persons/km <sup>2</sup> )	Forms of access to land	Availability of land resources	Fragility
Libya	Less than 1 per cent of total area is arable land 12 per cent of population is rural	Italian fascist occupation (1934–1951)	Customary, Statutory, Islamic. Some land is not titled	3.28	The government confiscated all Italian-owned land and redistributed much of it in smaller plots to Libyans The state retained some of the confiscated lands for state farming ventures In 1971, the state declared all uncultivated land state property	Same as above	Desertification and drought Coastal erosion
Mauritania	Less than 1 per cent of total area is arable land 36 per cent of population is rural	French colonization gradually absorbed the territories of present-day Mauritania from the Senegal river area and upwards, starting in the late 1800s. The country gained independence in 1960.	Customary, Statutory, Islamic. Most land is not titled	2.99		Same as above	Desertification and drought Coastal erosion Threats to biodiversity

Country	Salient country features	Colonial legacy	Land tenure	Population density (persons/km <sup>2</sup> )	Forms of access to land	Availability of land resources	Fragility
Morocco	14 per cent of total area is arable land 41 per cent of population is rural	1904, France exercised influence, and Spain in 1906, which formalized France's "special position" and entrusted policing of Morocco to France and Spain jointly. The country gained independence in 1956	Customary, Statutory, Islamic. Some land is not titled	70.7	Land market is imperfect Distribute ex-habous land Distribution of guich (land in recognition of military services) lands	Same as above	Desertification and drought Coastal erosion Deforestation Threats to biodiversity
SADR							
Tunisia	17 per cent of total area is arable land 35 per cent of population is rural	France declared the country a French protectorate in 1881. The country gained independence in 1956.	Customary, Statutory, Islamic. Some land is not titled	61.4	Distribute ex-habous land Privatization of collective land Distribution of state farms Strengthening access rights to private land Strengthening access rights to market land	Same as above	Desertification and drought Coastal erosion Deforestation Threats to biodiversity

## Annex 2: Terms of Reference for Northern Region

### Background

In view of the importance of land to Africa's social, political and economic development, sustainable resource management, as well as the achievement of peace and security in Africa, the African Union Commission (AUC), the UN Economic Commission for Africa (ECA) and the African Development Bank (AfDB), under the overall leadership of the AUC, pledged to work on a joint initiative in 2006–2008, with a view to developing a framework and guidelines for land policy and land reforms in Africa. The framework and guidelines is a vital tool aimed at complementing national and regional processes for land policy formulation and implementation, with a view to strengthening land rights, enhancing productivity and securing livelihoods. The process of developing the framework and guidelines will be done in close collaboration with regional economic communities (RECs), African Member States and other stakeholders in order to ascertain that the process is African-led and the end product African-owned. It is envisaged that the continental framework, with clear guidelines and modalities for its implementation will be endorsed by African Heads of States and Government (AHSG) through AUC policy organs, culminating in the AHSG Summit. The framework and guidelines will be useful in supporting regional and national land formulation and implementation processes through affording opportunities for peer learning as well as providing guidance on benchmarks for monitoring land policy reform and implementation processes and outcomes on the continent.

The road map set forth to develop and adopt the framework and guidelines includes the following critical steps:

#### a) A continental consultative workshop

The consultative workshop, which took place 27–29 March 2006 at the United Nations Conference Centre (UNCC), Addis Ababa, Ethiopia, was the first step in the process of developing the land policy framework and guidelines. The discussions were informed by an issues/discussion paper,

and brought together representatives from African governments, RECs, civil society including farmers' organizations, African private sector, centres of excellence and development partners. The workshop was successful in building consensus around the following issues:

1. Elements and thematic issues that would characterize the framework and guidelines of land policy and land reform in Africa;
2. Features of a vision and guiding principles for a framework of land policy in Africa;
3. Actions and sequential activities needed to develop a land policy framework and guidelines; and
4. Roles of stakeholders and partners, and resource mobilization.

The outputs of the workshop were: i) a background document summarizing the main land issues in Africa that should be used as the basis for developing the guidelines and framework; and ii) a skeleton framework of land policy and land reform in Africa.

#### **b) Regional consultations**

Using the background document and the skeleton framework resulting from the consultative workshop as well as regional assessments, as the basis for discussion, the consultations will ensure that regional specificities, initiatives and lessons are used to enrich the framework. In order to help define medium- and long-term processes, the regional consultations will also help to identify challenges, knowledge, institutional and resource gaps as well as on-going initiatives. This will assist in mapping out a strategy for capacity building and lesson-sharing activities vital to the implementation of the framework.

The key outcome of the regional initiatives is an enriched draft of the continental framework and guidelines of the land policy and land reform framework. In addition, a regional background document will outline the key elements and processes, needed in the medium- and long-term to facilitate the implementation of the framework.

**c) African Experts meeting; and d) Meeting of African Ministers Responsible for Land**

Having enhanced the land policy and land reform framework with regional consultations, the draft framework will be subjected to an extensive review and discussions by key experts from land related line ministries of all AU Member States. A key outcome of the experts meeting will be a refined draft of the framework and guidelines to be sent to the ministerial meeting. In addition, an Experts Report on the land policy framework and guidelines including key recommendations on its implementation will be produced.

Following the Experts meeting, Ministers will review and adopt the Expert's Report and Recommendation on Land Policy Framework and Guidelines.

**e) The Summit of Heads of State and Government**

The Ministers' Report and Recommendations on Land Policy Framework and Guidelines will be subjected to the policy organs of the AU Summit for consideration and adoption. These include the Permanent Representative Council (PRC) and the Executive Council (EC) of the Assembly. The EC will prepare a draft Declaration for consideration, review and adoption by the Assembly of African Heads of State and Government. The Declaration will contain resolutions and decisions on its implementation and follow-up.

***Regional Assessments—Rationale, Objective and Expected Output***

The regional assessments aim to raise land policy issues that highlight regional specificities, existing initiatives and lessons that will enrich the framework and guidelines. The assessments will also help to identify challenges, knowledge, institutional and resource gaps as well as ongoing initiatives. This will assist in mapping out a strategy for capacity building and lesson-sharing activities vital to the implementation of the framework in the medium to long-term. Using the background document and the skeleton framework resulting from the consultative workshop, as well as regional assessments as the basis for discussion, the consultations will ensure that regional specificities, initiatives and lessons are used to enrich the framework. The AU-ECA-ADB Joint Secretariat is working closely with RECs, African

member states and other stakeholders in conducting the regional assessments and the consultation workshops. The first Regional Assessment and consultation workshop was successfully concluded in Windhoek, Namibia, in September 1997. Plans are underway to undertake the next regional assessments in East and West Africa.

The key outcome of the regional initiatives is an enriched draft of the continental framework and guidelines of the land policy and land reform framework. In addition, a regional background document will outline the key elements and processes that are needed in the medium- and long-term to facilitate the implementation of the framework and hence support sub-regional and national processes aimed at implementation of land reforms to strengthen land rights, enhance productivity and secure livelihoods.

### ***Tasks involved in the Regional Assessments***

The specific tasks involved in the regional assessments are to:

- Identify priority land issues and challenges in the countries of the Northern sub-region<sup>59</sup> that constrain social and economic development, sustainable natural resource management, and the achievement of peace and security.
- Document and give a historical perspective to key policies and legislation relating to land in the sub-region, referring to countries as is necessary.
- Document any complementing policies, legislation and laws that might facilitate/impede the implementation of land policies.
- Document relevant processes used in policy formulation and implementation (e.g. commission of enquiry, identify key stakeholders involved, etc.)
- Identify key authorities involved in administering land rights, dispute resolution etc.
- Document any institutional reforms related to land administration.
- Document other existing initiatives relating to land policy reform, including land policy facilities, highlighting key stakeholders and partners.

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59 Algeria (dean), Egypt, Libya, Mauritania, Tunisia and Saharawi Arab Democratic Republic.

- Analyse the extent to which land issues and challenges (in 1 above) are addressed by the policies, legislation, laws, and processes identified above. Make special reference to lessons and areas for improvement.
- Analyse the extent to which institutional reforms have facilitated the formulation and implementation of land policies, highlighting innovative reforms, e.g. use of traditional institutions and processes. Make reference to potential lessons and best practices.
- Based on assessment above, document challenges, gaps and implementation bottlenecks of land policy and land reform, including capacity building needs and resources.
- Based on the findings from the regional assessment, make suggestions for revision of skeleton framework and guidelines with a view to ensuring that regional specificities are included.
- Prepare a report of the sub-regional assessments including all the elements above.
- Work closely with the Joint Secretariat and the RECs in preparing documents and planning for regional consultations.

### **Timing:**

The consultants will first participate in an inception meeting which will be held in Tunis, Tunisia, on December 3 and 4 2007. The purpose of the meeting is to plan for the assessment and consultations for the northern region, after which the consultants will prepare the report on the regional assessment, for discussion at the consultative workshop. The actual consultative workshop is scheduled to take place in January 2008.

Specifically, the inception meeting is intended to, *inter alia*:

- enable the consultants to gain a common understanding of the land policy initiative;
- gain a common understanding on the terms of reference and modalities for conducting the regional assessments;
- agree on roles and resources needed to complete the assignment;
- produce a draft programme for the regional consultative workshop for Northern Africa; and
- propose host country, facilitators, rapporteurs and participants for the regional consultative workshop.



The total duration of the assignment is 30 working days.

***Qualifications of Consultant:***

We require the services of regional land experts from the North African sub-region or with expertise on land in the sub-region. We are specifically looking for experts who are conversant with the main land issues in the Northern sub-region, key to which are policy related initiatives and the realities on the ground with respect to land administration issues, as indicated above.

## Annex 3: Population in North Africa

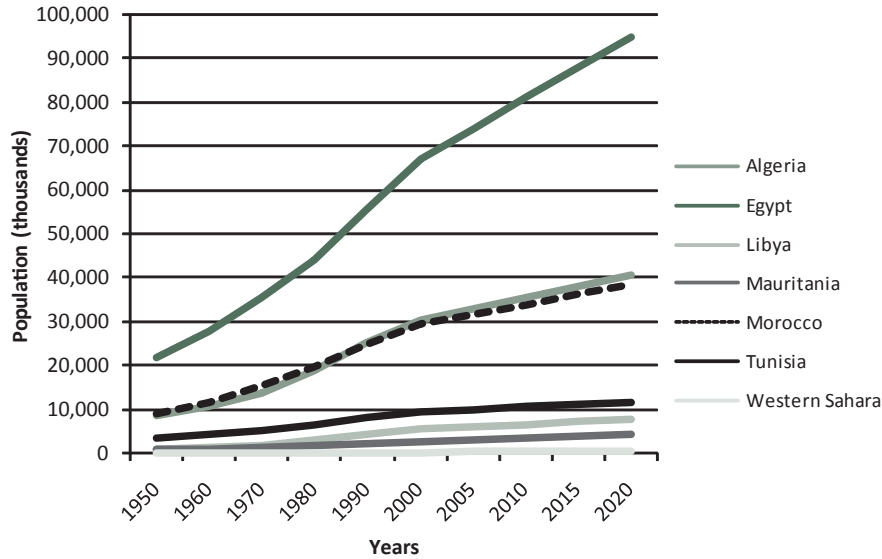
Several issues threaten the sustainable development of North Africa. The first issue is population growth. The population of North Africa increased from 46.8 million people in 1950 to 159.7 million in 2005, and is projected to grow to about 200 million by 2020 (Figure 6).<sup>60</sup> The population of North Africa is young. In 2005, those under 15 years old represented about 32.67 per cent of the total population, and will represent approximately 28.74 per cent in 2020 (Figure 7). This means the need will increase for physical infrastructure, such as drinking water and sanitation, and social services, such as adequate educational and health services. It also entails the need for massive investments to generate job opportunities for this young population. Meanwhile, the population of people over 65 years old in the region will increase. In 2005, they represented about 5.28 per cent; this number and will grow to around 7.25 per cent by 2020 (Figure 8). A young population and a growing elderly one means a high dependency ratio. Population growth and densities are real pressures on the available land resources that have to feed this population and avail them with opportunities for job.<sup>61</sup>

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60 According to IDSC, Cabinet of Ministers, Cairo, Egypt, in 1900 the population of Egypt was about 10 million. In 1950, the population increased to be around 20 million, and then 74.5 million in early 2008, in addition to about 4 million Egyptians living abroad.

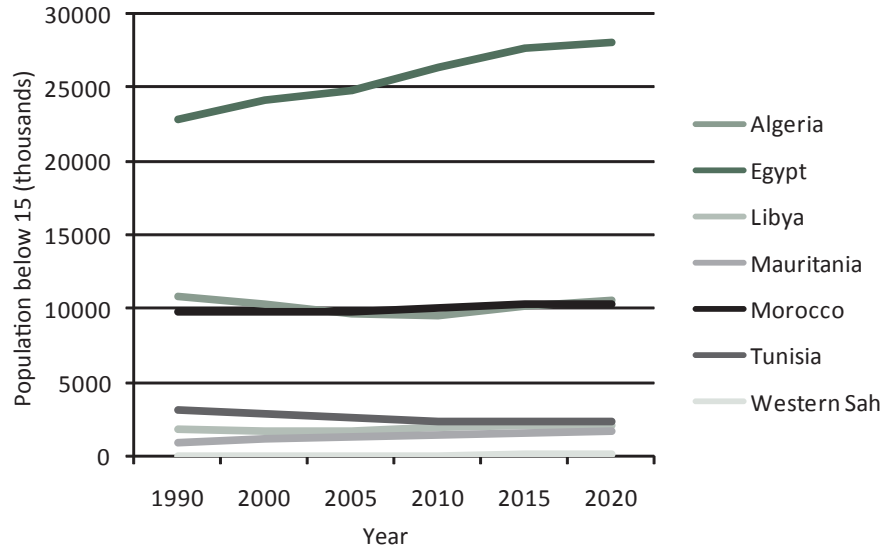
61 Based on data from EarthTrends based on Population Division of the Department of Economic and Social Affairs of the United Nations (2005). World Population Prospects: The 2004 Revision. Data set on CD-ROM. New York: United Nations. Available online at <http://www.un.org/esa/population/publications/WPP2004/wpp2004.htm>.

**Figure 6.** Total population of North African countries, 1950–2020.



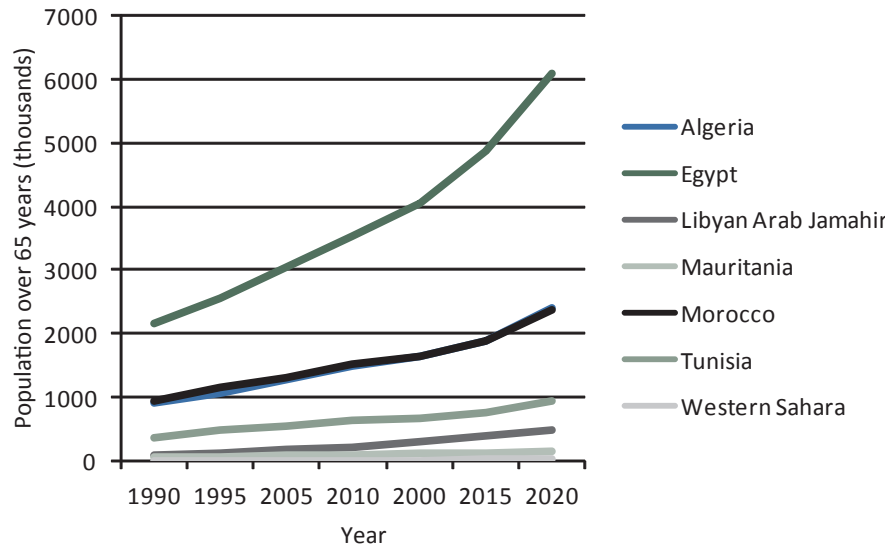
Source: Based on data from EarthTrends, The Environmental Information Portal, World Resources Institute (WRI), Washington, DC. [http://earthtrends.wri.org/searchable\\_db/index.php?theme=4](http://earthtrends.wri.org/searchable_db/index.php?theme=4) (accessed in 17 Jan. 2008) based on Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2005. World Population Prospects: The 2004 Revision. Data set on CD-ROM. New York: United Nations. Available online at <http://www.un.org/esa/population/publications/WPP2004/wpp2004.htm>,

**Figure 7 Population below age 15 years, both sexes, 1990–2020.**



Source: Based on data from EarthTrends, based on UN (2005); UN (2004).

**Figure 8 Population over 65 years old, both sexes, 1990–2020.**



Source: Source: Based on data from EarthTrends, based on UN (2005); UN (2004).

## Annex 4: Urbanization in North Africa

**Table 12. Urban population, number of cities and percentage of urban population in North African countries, 2005**

Population (×10 <sup>6</sup> )	Number of cities per size class					Percentage of urban population				
	10 or more	5–10	1–5	0.5–1	Less than 0.5	10 or more	5–10	1–5	0.5–1	Less than 0.5
Algeria	--	--	1	1	39	--	--	17	4	33
Egypt	1	--	1	2	21	35	--	12	3	16
Libya	--	--	2		1	--	--	62	--	10
Mauritania	--	--	--	1	1	--	--	--	32	4
Morocco	--	--	3	4	15			36	17	17

Source: Data compiled from World Urbanization Prospects, 2003, <http://esa.un.org/unup/index.asp?panel=1> (accessed March 2004).

**Table 13. Urban population, number of cities and percentage of urban population in North Africa, 2015**

Population (×10 <sup>6</sup> )	Number of cities per size class					Percentage of urban population				
	10 or more	5–10	1–5	0.5–1	Less than 0.5	10 or more	5–10	1–5	0.5–1	Less than 0.5
Algeria	--	--	1	2	38	--	--	17	6	31
Egypt	1	--	1	5	18	32	--	11	7	12
Libya	--	--	2	1	--	--	--	61	11	--
Mauritania	--	--	--	1	1	--	--	--	30	3
Morocco	--	--	5	4	13			45	12	12

Source: Data compiled from World Urbanization Prospects, 2003, <http://esa.un.org/unup/index.asp?panel=1> (accessed March 2004).

**Table 14. Urban population, number of cities and percentage of urban population in North African countries, 2005**

Population (×10 <sup>6</sup> )	Number of cities per size class					Percentage of urban population				
	10 or more	5–10	1–5	0.5–1	Less than 0.5	10 or more	5–10	1–5	0.5–1	Less than 0.5
Algeria	--	--	1	1	39	--	--	17	4	33
Egypt	1	--	1	2	21	35	--	12	3	16
Libya	--	--	2		1	--	--	62	--	10
Mauritania	--	--	--	1	1	--	--	--	32	4
Morocco	--	--	3	4	15			36	17	17

Source: Data compiled from World Urbanization Prospects, 2003, <http://esa.un.org/unup/index.asp?panel=1> (accessed March 2004).

**Table 15. Urban population, number of cities and percentage of urban population in North Africa, 2015**

Population ( $\times 10^6$ )	Number of cities per size class					Percentage of urban population				
	10 or more	5–10	1–5	0.5–1	Less than 0.5	10 or more	5–10	1–5	0.5–1	Less than 0.5
Algeria	--	--	1	2	38	--	--	17	6	31
Egypt	1	--	1	5	18	32	--	11	7	12
Libya	--	--	2	1	--	--	--	61	11	--
Mauritania	--	--	--	1	1	--	--	--	30	3
Morocco	--	--	5	4	13	--	--	45	12	12

Source: Data compiled from World Urbanization Prospects, 2003, <http://esa.un.org/unup/index.asp?panel=1> (accessed March 2004).

**Table 16. Population of capital cities and selected urban agglomerations with 750,000 inhabitants in 2000 (thousands)**

Country	City	1960	1970	1980	1990	2000	2005	2010	2015
Algeria	Algiers	813	1 281	1 621	1 908	2 761	3 260	3 739	4 165
	Annaba	136	192	267	317	357	382	416	458
	Constantine	169	281	376	449	466	482	514	561
	Oran	305	385	537	647	705	744	802	877
Egypt	Alexandria	1 504	1 987	2 519	3 063	3 506	3 760	4 074	4 469
	Al-Mahalla al-Kubra	177	249	315	371	409	433	469	518
	Cairo	3 811	5 579	7 338	9 061	10 398	11 146	12 036	13 123
	Port Said	244	275	306	425	502	546	601	669
	Suez	201	234	234	357	456	513	575	644
Libya	Tanta	183	250	301	348	388	413	448	497
	Benighazi	104	220	397	636	912	1 033	1 149	1 256
	Tripoli	174	398	797	1 500	1 877	2,093	2 300	2 497
Mauritania	Nouakchott	5	37	188	419	553	636	740	869
Morocco	Casablanca	967	1 505	2 109	2 685	3 344	3 743	4 168	4,579
	Fès	280	369	510	684	904	1 032	1 165	1 293
	Marrakech	243	323	416	580	818	951	1 082	1 203
	Meknès	190	242	304	396	519	592	670	746
	Rabat	233	494	808	1 161	1 610	1 859	2 102	2 325
Tunisia	Sfax	149	238	304	393	507	570	625	675
	Tunis	588	750	1 139	1 568	1 891	2 063	2 215	2 360

Source: Data compiled from World Urbanization Prospects, 2003, <http://esa.un.org/unup/index.asp?panel=1> (accessed March 2004).

**Table 17.** North African urban system by number of agglomeration per class, population and per cent of urban population 1980–2015

Size class	1980	1985	1990	1995	2000	2005	2010	2015
<b>10 million or more</b>								
Number of agglomerations	0	0	0	0	1	1	1	1
Population	0	0	0	0	10 391	11 128	12 041	13 138
Percentage of urban population	0	0	0	0	12	11	11	10
<b>5 to 10 million</b>								
Number of agglomerations	1	1	1	1	0	0	1	1
Population	7 349	8 328	9 061	9 707	0	0	5 178	6 022
Percentage of urban population	16	15	14	13	0	0	5	5
<b>1 to 5 million</b>								
Number of agglomerations	4	5	6	6	6	7	7	8
Population	7 413	9 573	12 688	14 823	16 637	19 485	17 455	20 152
Percentage of urban population	16	18	20	20	19	20	16	16
<b>500,000 to 1 million</b>								
Number of agglomerations	5	4	5	7	8	11	14	19
Population	3 228	2 790	3 166	4 668	5 690	7 307	9 384	12 829
Percentage of urban population	7	5	5	6	7	7	8	10
<b>Fewer than 500,000</b>								
Population	26 988	33 884	39 843	45 689	52 822	59 659	67 221	73 805
Percentage of urban population	60	62	62	61	62	61	60	59

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2004 Revision and World Urbanization Prospects: The 2005 Revision, <http://esa.un.org/unup> (accessed Tuesday, January 22, 2008; 4:25:13 AM).

## Annex 5: Forest of North Africa, 2005

**Table 18. State of forests, 2005**

	Middle East and North Africa	World
<b>Forest Area and Change</b>		
Total forest area, 2000 ('000 ha)	29 104	3 869 455
Natural forest area, 2000 ('000 ha)	20 448	3 682 722
Plantations area, 2000 (000 ha)	6 533	186 733
Total dry land area, 1950–1981 ('000 ha)	552 621	5 059 984
<b>Change in forest area:</b>		
Total, 1990–2000 (per cent)	2	-2
Natural, 1990–2000 (per cent)	X	-4
Plantations, 1990–2000 (per cent)	X	3
Original forest as a percentage of total land area	X	48
Forest area in 2000 as a percentage of total land area	2	29
<b>Forest Area by Crown Cover ('000 ha), 2000</b>		
<i>Note: Crown cover data are gathered using different methodologies than the forest area calculated above. The two estimates may differ substantially.</i>		
<b>Area of forest with crown cover:</b>		
Greater than 10 per cent	33 369	6 537 209
Greater than 25 per cent	16 375	4 842 071
Greater than 50 per cent	7 686	3 143 720
Greater than 75 per cent	4 077	1 945 916
<b>Ecosystem Areas by Type</b>		
Total land area	1 256 964	13 328 979
<b>Percentage of total land area covered by:</b>		
Forests	1	24
Shrub lands, savannah, and grasslands	25	37
Cropland and crop/natural vegetation mosaic	7	20
Urban and built-up areas	0.1	0.2
Sparse or barren vegetation; snow and ice	66	16
Wetlands and water bodies	0	3

Source: WRI (2005).



## Annex 6: Explosive Remnants of War

In the winter of 2006, Ayman Sorour published an article on explosive remnants of war (ERW) in North Africa (Algeria, Egypt, Libya, Morocco and Tunisia) from different perspectives, including the scope and history of ERW, their impact and their relationship to security.<sup>62</sup> Algeria, Egypt, Libya, Morocco and Tunisia are dealing with the contamination that has resulted from internal and regional conflicts over the past six decades, in addition to the contamination from the Desert War.

Since September 1998, in Algeria, Sorour reports 57 victims of mines and ERW. ERW affect Egypt in two main areas. The first area is in the west and includes many locations from Borg Al-Arab, which is 60 km west of Alexandria, to the Egyptian–Libyan border, 30 km from the Mediterranean Sea.<sup>63</sup> The second area is in the east and includes all of the Sinai Peninsula, the western coast of the Red Sea and the Suez Canal as a result of Egyptian–Israeli wars (1956, 1967 and 1973), in addition to some areas in the Governorate of Sharqiya that are not known as affected but have witnessed some ERW accidents. In 1999 Egypt declared there had been 8,313 mine and ERW victims in the previous two decades. Information on victims since 1998—in addition to the ratio of mines/ERW in Egypt—shows that the half a million people living in the western desert and the 600 thousand people living in the Sinai are more affected by ERW than mines. All of the victims of ERW and mines are those who work on the development and repair of infrastructure, Bedouins or farmers. Victims lose their main source of income, yet Egypt does not have a mechanism in place to assist them. They might get a one-time payment of up to \$80 after a long process filling out paperwork to prove their injury.

ERW in different areas in the northern part of Libya are the result of the World War II campaign in North Africa; in the north-eastern area at the border with Egypt because of the Egyptian–Libyan conflict in 1977; and in the southern area, including the border with Chad, as a result of the Libyan–Chadian war from 1977 to 1987. Libya has an estimated 1.5 to 5 million mines and ERW; some officials make estimates of up to 10 million. There is no current estimated number of mine/ERW victims in Libya. Sorour esti-

<sup>62</sup> Sorour (2006).

<sup>63</sup> As a result of World War II battles in North Africa during 1942 and 1943.

mates there were 12,258 victims during the period of 1952 to 1975, which includes 3,874 deaths and 8,384 injuries.

ERW and mines did not affect Morocco, except for the territories it controls in Western Sahara. Between 1975 and 1991, Western Sahara witnessed a sovereignty conflict among Morocco, Frente Popular de Liberación de Saguía el Hamra y Río de Oro (The Polisario Front)—a Saharawi nationalist organization—and Mauritania, before its withdrawal from the conflict in 1979.

An unknown number of ERW and mines affected Tunisia because of World War II conflicts in North Africa, and anti-tank and anti-personnel mines it placed to secure its borders with Algeria and Libya. During its conflict with Libya from 1970 to 1980, Tunisia planted 1,530 anti-tank mines in 9 minefields along its border with Algeria and Libya. ERW-affected areas in Tunisia include Mareth, Matmata and El Hamma regions in the south; Kasserine and Faiedh regions in the central part of the country; Le Cap-Bon; and the north-west region of the country. The humanitarian impact of mines in Tunisia is very minor, while the humanitarian impact of ERW from World War II is more significant, although it remains relatively small by international standards.<sup>64</sup>

ERW and mines are obstacles to land development in many North African countries. In Egypt, irrigation projects essential for land reclamation and cultivation, have experienced delays and increased costs because of the need to clear mines and ERW from prospective sites and routes. Examples of delayed projects are the El Hammam Canal in the western area and the El Salam Canal in the eastern area, where a total of 833 thousand *feddan*<sup>65</sup> had to be cleared before the irrigation and follow-on agriculture projects could begin. Mines and ERW are also a serious impediment to the development of traditional and non-traditional sectors of the power supply industry in Egypt. The need to remove ERW delayed large-scale “wind farm” projects in the western area and increased the costs of the 500kV power cable connecting Alexandria (the main port of Egypt and the second largest city), to the existing eastern electrical network. Mines and ERW negatively affect the petroleum sector in Egypt where 4,800 million barrels of oil and 13.4 trillion cubic metres of gas in the western area, and all the petroleum areas, ex-

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<sup>64</sup> Sorour (2006).

<sup>65</sup> About 864,654 acres.

cept for those in the sea, are in mine- and ERW-contaminated or suspected areas. Any petroleum/gas project must budget for mine and ERW clearance before beginning production; this amount varies from area to area. It also affects the tourism industry. In 1998, a German tourist was seriously injured due to an accident involving unexploded ordnance in El Ain El Sokhna on the coast of the Gulf of Suez. In 1999 four tourists, two German and two Swiss, were injured after their car hit an unidentified mine or other kind of ERW in the western area. In addition, all tourist sites in Sinai and on the coast of the Red Sea are in close proximity to mines and ERW. These two accidents have not affected tourism, but one big accident could have a serious impact on the industry, which is one of Egypt's main sources of income.

Mines and ERW also affect accessibility to schools in the western area. In the Governorate of Matrouh, all affected areas have to build more schools to make them easily and safely accessible for children. The development of the new port and the associated free industrial zone of El Ain El Sokhna is also affected by mines and ERW. The Egyptian Army cleared this area for infrastructure, but some mine and ERW incidents occurred subsequently, requiring the area to be de-mined a second time. These accidents delayed completion of the project.

In Libya, mines and ERW affect the agricultural sector. Approximately 295,059 hectares<sup>66</sup> in the country cannot be used to grow crops because of mines and ERW. In 1972, the Ministry of Agriculture and Land Reclamation published an estimate of the total income loss from not using affected land at 18,897,760 Libyan dinars (about \$14,475,728). Raising livestock is an important source of income for people in Libya, and having adequate land for grazing is essential for this industry. In 1976, Libyan authorities estimated 1,452,077 hectares<sup>67</sup> of affected land could not be used for grazing. In addition, 75 thousand camels, 48,750 sheep and 1,250 cows were killed in mine and ERW incidents. Due, in part, to rising population rates and the slow process of de-mining, these statistics have not seen much improvement over the past three decades. Mines/ERW affected the infrastructure of the transportation network in Libya, causing delays in road reconstruction. They also affect the oil sector: they increase the costs of any petroleum project due, in part, to the need for de-mining before drilling can start. The Great Man-Made River (GMMR) that brings water from the south of

66 Around 1,139 square miles.

67 5,607 square miles.

the country to the populated areas took much longer and cost significantly more than was originally expected to complete because of mine/ERW clearance.<sup>68</sup>

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68 Sorour (2006).

## Annex 7: Country Profiles

### Algeria

Algeria is the largest country on the Mediterranean coast. Its size is almost 2.4 million km<sup>2</sup> with an estimated population of nearly 35 million. Population density is about 13.8 persons per square kilometre.

Most of the coastal area is hilly, sometimes even mountainous, and there are a few natural harbours. The area from the coast to the Tell Atlas is fertile. South of the Tell Atlas is a steppe landscape, which ends with the Saharan Atlas; further south, there is the Sahara Desert. Only 3 per cent of the total area is arable land; 39 per cent of population is rural.

The French invaded Algeria in 1830. Subsequently, they attempted to make Algeria an integral part of France, a status that would end only in 1958. Tens of thousands of settlers from France, Italy, Malta and Spain moved into the country to farm the Algerian coastal plain and occupied significant parts of Algeria's cities. These settlers benefited from the French Government's confiscation of communal land, and the application of modern agricultural techniques that increased the amount of arable land.

The land tenure system is a combination of customary, statutory and Islamic. Some land is not titled. After independence, the Algerian Government seized all lands in the possession of the colonialists and the state took control over land. Currently, many landholders have usufructuary rights; the state retains the ownership of land.

Ample amounts of land are available for sensitive agricultural production, and other economic activities, such as mining, manufacturing, tourism etc. The major constraints to attracting settlement outside the limited arable areas are fresh water resources, infrastructure and social services.

A number of environmental issues limit the development capacities of land, and are real challenges to the sustainable development of Algeria. These obstacles include environmental fragility, i.e. the inability of the ecosystem to regenerate itself, particularly in the coastal zones. Coastal erosion is an

associated issue. The second issue is drought and desertification that result from limited amounts of fresh water. The third is deforestation and the associated threat to biodiversity, which is the basis for agricultural activities and other economic activities that have both forward and backward linkages to agriculture.

The Government of Algeria has been active in formulating and implementing strategies and policies to protect natural resources, particularly land. The state has formulated and implemented several initiatives to boost land productivity and face environmental challenges. The government has allocated significant shares of the dividends from oil exports to improve conditions in the rural areas and to diversify the basis of the national economy.

## **Egypt**

The total area of Egypt is about 1 million km<sup>2</sup>. Nevertheless, due to the aridity of Egypt's climate, human settlements are concentrated along the narrow Nile Valley and Delta, meaning that approximately 99 per cent of the population uses only about 5.5 per cent of the total land area. Apart from the Nile Valley, most of Egypt's landscape is sandy desert. A total of 56 per cent of the population is rural; population density in the country is about 74.8 persons per square kilometre.

Egypt's important role in geopolitics stems from its strategic position: a transcontinental nation, it possesses a land bridge (the Isthmus of Suez) between Africa and Asia, which in turn is traversed by a navigable waterway (the Suez Canal) that connects the Mediterranean Sea with the Indian Ocean via the Red Sea.

Land policy formulation and management are closely associated with transformations in the institutional set-up of the state. Until 1855, only about one seventh of Egypt's cultivated land was under private ownership. The government owned the remaining land and distributed it periodically among the farmers; each village had to be collectively responsible for the taxes and debts. During 1855–1858 new laws were promulgated to introduce principles of private property and Muslim inheritance to Egyptian rural areas. By 1896 the bulk of Egyptian agricultural land was privately owned. By 1952 a

small minority of 2,136 landholders owned 1.2 million *feddan*<sup>69</sup> (around 20 per cent of the cultivated land). Conversely, 2.6 million landowners, 94 per cent of all freeholders, owned only 2.1 million *feddan* (approximately 35 per cent of the total agricultural land). Three land reform measures were instituted lowering the maximum landholding to 100 *feddan* per family and 50 per individual. The general effects of land reform were to destroy the land aristocracy, increase the ranks of those with less than 5 *feddan*, and maintain the class of middle range landowners of 10–50 *feddan*. By 1971 a total of 850 thousand *feddan* were in the possession of 410 thousand families owning less than 2 *feddan* each.<sup>70</sup>

Today, an estimated 45 per cent of the holders of less than 1 *feddan* hold less than 10 per cent of the agricultural land. The Information and Decision-Support Centre (IDSC), Cabinet of Ministers, Egypt, confirms these findings. According to IDSC, people owning less than 1 *feddan* of land are about 43 per cent of the landholders in Egypt; those who own more than 1 *feddan* and less than 5 *feddan*, and those who hold more than 5 *feddan* are 47 and 10 per cent of the landholders respectively. Cultivated land in Egypt tends to be small and fragmented. For decades, this dwarf-size farming has prevented economies of scale in production, inputs and marketing, raising the cost of production and making agriculture relatively inefficient.

The Egyptian legal system stems from the Islamic laws and French Civil Law. Land tenure in Egypt is customary and statutory; some land is not titled. Forms of access to land include, but are not limited to, adverse possession; setting ceilings on ownership of old agricultural land, and distributing excess land to the landless; eminent domain actions to implement projects in the public interest; selling state land and farms (privatization); allocation of land for cooperatives/major investors, and the like.

The Government of Egypt has developed plans for proper, efficient use of available land. Since the late 1990s, the state has elaborated an investment map, which is a spatial demarcation of investment opportunities and the site for national mega-projects. Lately, the government has embarked, with the assistance of donors, on formulating the Greater Cairo 2050 plan, in addition to efforts to prepare the plans for cities, towns and villages.

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<sup>69</sup> One *feddan* is about 4,200.83 square metres.

<sup>70</sup> Waterbury (1978).

The Egyptian urban system suffers from urban primacy, which correlates with many problems such as poverty, unemployment, environmental degradation, increasing rural–urban gap etc. The growth of the informal urban sector and threats to old, historic quarters are facets of urban primacy requiring proper settlement planning and management.

Securing land tenure is a prerequisite for effective human settlement and environmental management. It is central to operating competitive land markets. Unregistered informal holdings in urban Egypt were about \$241 billion in 1997. The government started developing an inventory list of properties in preparation for levying property taxes.

There is ample land available for sensitive agricultural production and other economic activities, such as mining, manufacturing, tourism etc. The major constraints are fresh water resources, infrastructure and social services to attract population outside the limited arable land.

Egypt faces a number of land related environmental threats. These include desertification and drought, erosion of coastal zones, and the adverse impacts of climate change on water resources and biodiversity.

In addition to environmental challenges, land mines and ERW constitute a major hurdle to land development. Irrigation projects needed for land reclamation, development of wind farms in the western area and other development initiatives cost more and take more time to implement because of the need to clear land mines from the sites.

## **Libya**

The area of Libya is almost 1.8 million km<sup>2</sup>, 90 per cent of which is desert. Libya's coastline is the longest of any of the African countries bordering the Mediterranean. The climate is mostly dry and desert-like in nature. However, the northern regions enjoy a milder Mediterranean climate, i.e. warm to hot, dry summers and cool, wet winters.

The Libyan Desert, which covers much of eastern Libya, is one of the most arid places on earth. There are a few scattered uninhabited small oases, usually linked to the major depressions, where water can be found by digging a few feet into the ground. In the west there is a widely dispersed group of



oases in unconnected shallow depressions, the Kufra group, consisting of Tazerbo, Rebianae and Kufra.

Less than 1 per cent of the total area is arable land. Tripoli, the capital, is home to 1.7 million of Libya's 5.7 million people. An estimated 12 per cent of the population is rural. The population density is about 50 persons per km<sup>2</sup> in the 2 northern regions of Tripolitania and Cyrenaica. Population density, however, falls to less than one person per square kilometre elsewhere. Ninety per cent of the people live on less than 10 per cent of the land area, primarily along the coast. About 88 per cent of the population is urban, mostly concentrated in the two largest cities, Tripoli and Benghazi. About 50 per cent of the population is estimated to be younger than 15 years old. Such a population will require social services, such as education and health; physical infrastructure, such as drinking water and wastewater collection and treatment plants; housing; and job opportunities.

Natural hazards come in the form of the hot, dry, dust-laden sirocco. This is a southern wind blowing from one to four days in spring and autumn. There are also dust storms and sandstorms.

The Libyan economy depends primarily upon revenues from the oil sector which constitute practically all export earnings and about one quarter of the gross domestic product. Today, high oil revenues and a small population give Libya one of the highest gross domestic products per person in Africa and have allowed the Libyan State to provide an extensive level of social security, particularly in housing and education. Compared to its neighbours, Libya enjoys low levels of poverty. The government has carried out economic reforms in an attempt to reintegrate the country into the global capitalist economy, particularly after the lifting of UN sanctions in 2003.

In 1912 the Italians occupied Libya; the country became independent in 1951. A significant number of Italians settled in the country during the occupation. The government confiscated all Italian-owned land and redistributed much of it in smaller plots to Libyans. The government retained some of the confiscated lands for state farming ventures.

The land tenure system in Libya is mixed consisting of customary, statutory, and Islamic systems; some land is not titled. The Government of Libya embarked on executing one of the most significant irrigation projects of

the world—the Great Man Made River. This project was conceived of in the late 1960s, and implementation started in the early 1980s. It is a network of pipes that supplies water from from the Nubian Sandstone Aquifer System (a fossil aquifer) in the Sahara Desert. The network consists of more than 1,300 wells, more than 500 m deep, and supplies 6,500 thousand m<sup>3</sup> of fresh water per day to the cities of Tripoli, Benghazi, Sirt and elsewhere.

Land development in Libya faces several challenges. First, is the need to clear mines and ERW. Second, is to continue efforts to reintegrate the country into the global economy and induce the necessary institutional and legal reforms conducive to a business-friendly environment. Third, is to manage drought and combat desertification. Finally, no development will be sustainable without addressing coastal erosion, given that the major Libyan human settlements are located along the coast.

## **Mauritania**

The Islamic Republic of Mauritania is a country in north-west Africa. Mauritania is generally flat, with a gross area of the country of about 1 million square kilometres forming vast, arid plains broken by occasional ridges and cliff-like outcroppings. The capital and largest city is Nouakchott, located on the Atlantic coast. A series of scarps face south-west, longitudinally bisecting these plains in the centre of the country. The scarps also separate a series of sandstone plateaus, the highest of which is the Adrar Plateau, reaching an elevation of 500 m<sup>3</sup>.

Spring-fed oases lie at the foot of some of the scarps. Isolated peaks, often rich in minerals, rise above the plateaus; the smaller peaks are called *guelbs* and the larger ones *kedias*. The concentric Guelb er Richat (also known as the Richat Structure) is a prominent feature of the north-central region. Kediet ej Jill, near the city of Zouïrât, has an elevation of 1000 m and is the highest peak in the country.

Approximately three quarters of Mauritania is desert or semi-desert. As a result of extended, severe drought, the desert has been expanding since the mid-1960s. To the west, between the ocean and the plateaus, are alternating areas of clayey plains and sand dunes. Some of the dunes shift from place to

place, gradually moved by high winds; the dunes generally increase in size and mobility toward the north.

In 2005, the population was estimated at 3,069,000 people. Approximately 36 per cent of population is rural. The population density is about 3/km<sup>2</sup>. The majority of the population depends on agricultural production to support their livelihoods. Recurrent droughts in the 1970s and 1980s forced most of the nomads and farmers into the cities. Drought resulted in a build-up of foreign debt.

Mauritania has a diverse natural resource base. The country has extensive deposits of iron ore, which account for almost 50 per cent of total exports. With the current increases in the prices of metal, gold and copper mining companies are opening mines in the interior. Oil was discovered in Mauritania in 2001 in the offshore Chinguetti deposit. There may be additional oil reserves inland in the Taoudeni basin, although the harsh environment will make extraction expensive. The nation's coastal waters are among the richest fishing areas in the world, but overexploitation threatens the sustainability of this resource. The country's first deepwater port was opened near Nouakchott in 1986.

The French occupied the country in 1860. French colonization gradually absorbed the territories of present-day Mauritania from the Senegal River area and upwards, starting in the late 1800s. Mauritania gained independence in 1960.

The land tenure system in Mauritania is a combination of customary, statutory and Islamic; most land is not titled. The major challenges to sustainable development in the country include desertification and drought, coastal erosion, and threats to biodiversity.

## **Morocco**

Morocco has a population of nearly 34 million and an area of just under 447 thousand km<sup>2</sup>, where 14 per cent of total area is arable land. About 41 per cent of the population is rural. The capital is Rabat, and the largest city is Casablanca. The country has a coast on the Atlantic Ocean that reaches past the Strait of Gibraltar into the Mediterranean Sea.

The Treaty of Fez (signed on 30 March 1912) made Morocco a protectorate of France. By the same treaty, Spain assumed the role of protecting power over the northern and southern Saharan zones on 27 November that the same year. Morocco regained its political independence from France on 2 March 1956.

The land tenure in the country is a combination of customary, statutory and Islamic and some land is not titled. The property rights systems are diverse. In 1921, there were eight different systems including seven traditional regimes (according to Muslim and customary laws) such as *melk*; *guich* and *habous*. Only one system abided by registration according to (contemporary) legislation.

Private land (*melk*), as opposed to state and tribal collective lands, allows for the civil code property rights (*usus*, *fructus* and *abusus*). This system is the predominant land tenure system in Morocco (74.4 per cent of the country). This importance shows the significant of land and social transformations during the last few decades since at the beginning of the century land was basically the property of tribes (three quarters of the territory). This category has gained from the process of registration to acquire legal titles which was a necessary provision for modernization.

### Glossary of land ownership systems

Concept in Arabic	Description
Intifaâ:	Usufructuary right
Ihyaâ	Vivification
Khammessat	Sharecropping (1/5)
Terres arch	Tribal land
Terre guich	Tribal land in recognition of military services
Habous	Land dedicated to religious and other public services
Melk	Private land

### Land right regimes in Morocco

Status	Per cent	Area ('1000 ha)
<i>Melk</i>	74.4	5,383.1
Collective	13.9	1,005.7
State lands	6.2	448.7
<i>Guich</i>	4.4	3,318.4
<i>Habous</i>	1.0	72.3

Source: Bouderbala (1999).

Collective lands are attributed to tribes or ethnic groups and are registered/titled. The rules governing the division, access and organization of collective plots are the responsibility of the general assembly of the community. The relatively small proportion of these lands reflects the important transformations in the process of privatization. These lands, however, remain a refuge for a large number of peasants. Nevertheless, this system has led to other problems related to extreme land distribution which delayed the modernization or even the viability of these farms.

The state domain represents around 6 per cent of the total land area. It is considered to be the cornerstone of government agricultural development programmes mainly to promote investment in irrigated areas.

According to a study by GTZ, on desertification and drought,<sup>71</sup> desertification in Morocco is alarming. Land losses are being accelerated by drought coupled with long-term climate change. The Kingdom of Morocco ratified a national action programme (NAP) in June 2001. Various partners have supported these initiatives and have provided intensive back-up through bilateral projects in Morocco and with the Observatoire du Sahara et du Sahel (OSS). The Moroccan action programme links efforts to combat desertification with poverty reduction and rural development.

Credible sources ([www.idrc.ca/ccaa](http://www.idrc.ca/ccaa) and [www.accma.un.ma](http://www.accma.un.ma)) indicate that the coastal zone in Morocco is becoming more vulnerable following climate change trends.

## **Saharawi Arab Democratic Republic**

The Saharawi Arab Democratic Republic (SADR) is a partially recognized state which claims sovereignty over the entire territory of Western Sahara, a former Spanish colony. Mauritania, along with Morocco, annexed the territory in 1976, with Mauritania taking the lower third at the request of former colonial power, Spain. While most of the former Spanish or Western Sahara has been woven into Morocco, the UN still considers the Western Sahara a territory that needs to express its wishes with respect to statehood.

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71 [www.gtz.de/de/dokumente/en-desert-projects-morocco.pdf](http://www.gtz.de/de/dokumente/en-desert-projects-morocco.pdf).

The livelihoods of the Saharawi people depend on livestock, mainly camels, goats and sheep. Trade, fishing and seasonal farming are other economic activities. Landholding was never a measure of wealth—number of animals is.

The Saharawi land is rich in natural resources including oil, natural gas, magnesium, tungsten etc. An estimated 10 per cent of the world's deposits of phosphate are found within SADR.

## Tunisia

Tunisia is the northern-most country on the African continent, and the smallest of the nations situated along the Atlas Mountain range. Around 40 per cent of the country comprises the Sahara Desert, with much of the remainder consisting of particularly fertile soil and a 1,300 km coastline. Both played a prominent role in ancient times. Tunisia ranks high among Arab and African nations in reports released by the World Economic Forum.

France declared the country a French protectorate in 1881. Tunisia gained independence in 1956. Approximately 17 per cent of the total area is arable land; 35 per cent of the population is rural. Major environmental issues are desertification and drought; coastal erosion; threats to biodiversity; and deforestation.

The Conservation of Land Property is the institution that the French established to facilitate and encourage French colonists to get settled in Tunisia. At that time the French administration felt the need to manage the legal status of the real estate.<sup>72</sup> The aim was to open the way to the agricultural colonization of Tunisia by founding a land system which allows people to know who owns the land—for future development programmes—and which confers the creditors sufficient guarantees for future land utilization. As such, the land registration process aims initially to purge land (property) of all the disputes, and then ensure its consistency and its limits, and finally to determine irrevocably all related rights. The founder of the system<sup>73</sup> made registration optional to avoid conflict with Tunisian traditions. Nevertheless, the system immediately provided Europeans the security they

<sup>72</sup> Promulgation de la première loi foncière en Tunisie le 1<sup>er</sup> Juillet 1885.

<sup>73</sup> Paul Combon résident général de France en Tunisie qui s'est inspiré du système Torrens qui avait été expérimenté avec succès trente plutôt en Australie.

needed. To date, land ownership in Tunisia is governed by two different legal statuses:

- A traditional system related to the non-registered lands governed by the code of obligations and contracts;
- A modern system related to registered lands. This system confers more guarantees to the owners.

Three organizations, created by the Land Law of 1885, are involved in the process of the land registration. The first was the Court of Tunisia, currently called the “Real Estate Court”. This court is responsible for the registration of Real Estate and its verdict is final. The second organization was the topography facility (currently the Office of Topography and Cartography). It is a technical institution whose role is to precisely map buildings in relation to the national geodetic network and to establish the limits of a property and its area in an objective and scientific manner. The third, Conservation of the Land Property, is an administrative authority. Since 1970 this organization has been a public establishment; in 1991 became part of the Ministry of Public Domain and Land Affairs. Its role is to execute land registrations decisions and land bookkeeping of all real estate operations.

Until 1964 land registration in Tunisia was optional for urban land and buildings and for rural properties and agricultural lands. In 1964, following a land reform programme, land registration became obligatory by cadastral census. This programme aims to accelerate the full registration of all the arable lands in Tunisia. This registration is free of charge. Only the plots of land and the buildings can be registered. Two categories of land are not considered by the application of the land registration in Tunisia. These are: collective lands of the tribes; and mines and the public domains which are under special legal status. However, registration is possible for all the mines, the historic buildings and the ruins and for the buildings belonging to the private domain of the state.

The Code of the Real Rights promulgated by the law n° 65–5 of 12 February 1965 specified the real rights which must be registered in the Land Register to be used by a third party or, if necessary, as a legal document between the contracting parties. Indeed, the land title which is an instrument of land information par excellence is accessible to the public. The information which it contains is precise and serves as evidence in case of dispute. This system of land registration, which has functioned for more than a century, is facing

the challenge of modernization in the form of several programmes of administrative and legal reforms. A policy of decentralization of the services of land conservation was launched in 1983. Currently, this organization has 15 regional directorates. Decentralization also included the Ministry for Justice which created several auxiliary seats at the Real Estate Court, and the Ministry of Equipment with several regional centres of the Office of Topography and Cartography.

Since 1992 there have also been thorough reforms at the legislative level to keep the Land Book current, to enable it fully play its simultaneous role in the economy, and to attract investment from internal and external sources. Among these reforms are:

1. Reforms which have a preventive effect: This involved the creation of a body charged with writing acts.<sup>74</sup> This body comprises the land property officer, the regional directors and the land property agents in charge of the drafting. It also comprises notaries and lawyers (after training).
2. Reforms which have a curative effect: This was achieved by establishing a regional commission within each governorate to update land titles. Such a commission is chaired by the Governor or the Secretary General of the Governorate and comprises the regional directors of land conservation, the real estate court judge, a representative of the office of Topography and Cartography and any other person whom the president will consider useful. Given the limited responsibility entrusted to these commissions, they did not give the anticipated results. Consequently, in 2001 the commissions were replaced by the Real Estate Court comprising the chamber of the frozen titles and the judge of the Land Book.
3. Reforms which have an incentive effect: These reforms are best described by:
  - a. The application of the constitutive principle of inscriptions' right on the Land Register,<sup>75</sup> which applies to titles created upon judgment ordering the registration. This follows the law of 20 April 1998 and the updated law of 10 April 2001.

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<sup>74</sup> Loi n° 92-46 du 04 mai 1992 modifiée par la loi n° 92-84 du 06 Août 1992.

<sup>75</sup> Loi n° 2000-91 du 31 Octobre 2000, relative à l'application de l'effet constitutif de l'inscription à certains titres fonciers.



- b. The reduction of the registration fees. Indeed, the registration fees have dropped from 14.5 per cent to 5 per cent of the amount of the transaction.
- c. The abolition of certain administrative authorizations in order to encourage foreign investment in fields other than the agricultural sector.

Additional reforms were initiated in order to make the land policy in Tunisia more in harmony with the overall economic and social evolution in the country. Among these measures, we can cite the following:

- 1. The promulgation of the Territory Management Code and Urbanization, law n°94-122 of 28 November 1994.
- 2. The protection of the arable lands against urbanization, and the creation of irrigated areas.
- 3. The prohibition of the sale of state agricultural lands, law n° 95-21 of February 13, 1995.

As regards the social aspects, since the promulgation of the *Code du Statut Personnel* Tunisian women have enjoyed the same rights as the man, except the succession rights which are guided by the Muslims right that the share of the man is double that which is allocated to the woman. In Tunisia the woman is not subject to any discrimination and enjoys similar rights to those of the man. Tunisia has ratified all the international conventions relating to the women's right.

## Annex 8: Definitions

***Coping strategies*** are short-term measures applied when a household or community does not have sufficient income or food to meet all its essential needs.

***Customary systems*** are systems where tenure rights are ostensibly controlled and allocated according to traditional practice.

***Environmental security*** is the capacity of individuals and groups of people to live harmoniously with nature on a sustainable basis, while meeting their basic needs.

***Food security*** is the capacity of households, communities and the state to mobilize sufficient food through production, acquisition and distribution, on a sustainable basis.

***Freehold*** is a traditionally western concept implying the absolute right to control, manage, use and dispose of a piece of property.

***Land cover*** is the physical material at the surface of the earth. Land covers include grass, asphalt, trees, bare ground, water etc. There are two primary methods for capturing information on land cover: field survey and thorough analysis of remotely sensed imagery.

***Land policy generic model*** is derived from five analytical constructs of land management, namely 1) land distribution, 2) land utilization, 3) land tenure security, 4) land administration and 5) land adjudication. It posits land tenure as one of the central factors determining food security and sustainable development.

***Land policy reviews*** are processes that lead to new land laws or the redefinition of the necessary institutional framework under which land policy is administered, taking into account the existence of various forms of “land markets” initially introduced in the colonial era. However, land markets existed before colonialism in some parts and have emerged in areas not so much touched by formal law.

**Land policy**, as it relates to the other concepts outlined, is crucial to sustainable livelihoods and food security. Land policy-making encompasses the drafting of all aspects of land management and is usually led by the state. Some land reform policies tend to be more radical, being focused on restructuring the distribution of land ownership rights.

**Land rights** are those property rights that pertain to real estate land, and have increasingly come to be perceived as embedded within the broad spectrum of human rights and are related to the notion of rights to food and to existence.

**Land tenure** itself is a derivative of the concept of natural resource tenure, while the concept of “tenure” is a social construct, defining the relationships between individuals and groups of individuals by which rights and obligations (with respect to control and use of resources) are defined.

**Land use** is the human modification of natural environment or wilderness into built environment such as fields, pastures, and settlements.

**Leasehold**, in which land belonging to one entity is, by contractual agreement, leased to another entity for a fixed period of time.

**Livelihood strategies** are the ways in which assets or resources are used to generate access to food and other basic needs.

**Livelihoods** are the way in which households and communities derive food, shelter and clothing to sustain their living.

**Statutory allocations**, a particular form of state land where such land, by virtue of some statutory provision, is allocated for the use of some legally constituted body.

**Sustainable livelihoods**, which exist when systems of human livelihood can cope with and recover from stresses and shocks, and maintain or enhance their human capabilities and assets without undermining the natural resource base.



This North Africa regional assessment study on land policy has been prepared by experienced land experts from the region and has benefited inputs from a wide range of stakeholders including representatives of Governments, Civil Society, Private Sector, Centres of Excellences and Development Partners, during a regional multi-stakeholder consultation led by the Community of Sahel Saharan States (CEN-SAD). The study discusses key land issues and challenges, provides information on the status of land policy development and implementation and draws lessons from land policy processes in the region.

This regional assessment helped to enrich the *Framework and Guidelines on Land Policy in Africa* with regional specificities and perspectives from North Africa.

The AUC-ECA-AfDB Land Policy Initiative Consortium hopes that this publication will be useful to all stakeholders, especially Governments, Civil Society Organisations and Development Partners, in their efforts to promote experience sharing, document best practices in the land sector and build capacity for effective land policy development, implementation, monitoring and evaluation.