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Forestry Outlook Study for West and Central Asia
(FOWECA)

Thematic paper

Land use dynamics and institutional changes in West Asia

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LIST OF ACRONYMS AND ABBREVIATIONS

CPA	Coalition Provisional Authority
EU	European Union
FAO	Food and Agriculture Organization
FRA	Forest Resources Assessment
GDP	Gross Domestic Product
GNP	Gross National Product
ha	hectare
NFP	National Forestry Programme
NGO	Non-governmental Organization
U.A.E.	United Arab Emirates
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFF	United Nations Forum on Forests

1 INTRODUCTION

1.1 Objectives of the Study

This Thematic Study aims to identify the current trends in the forestry and related sectors as a result of land use dynamics as well as policy, legal, and institutional changes in the West Asia region. For that purpose, research of the available literature was conducted, in addition to review of the reports submitted by the countries involved, whose contribution was highly valuable to the outcome of this report.

1.2 Structure of the Report

In terms of structure, the study is divided into five chapters. Chapter 1 introduces the objectives of the report and its structure. Chapter 2 describes the physical conditions in the region as well as demographic trends, socio-economic indicators, and political and institutional changes. Chapter 3 describes the land use dynamics in the region while Chapter 4 delineates the policy, institutional, and legal conditions and changes as they relate to the forestry sector. Chapter 5 presents the Conclusions of the report.

2 OVERVIEW OF THE SUB-REGION

The sub-region of West Asia includes the countries of Afghanistan, Bahrain, Cyprus, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates (U.A.E.), and Yemen (Figure 2-1).

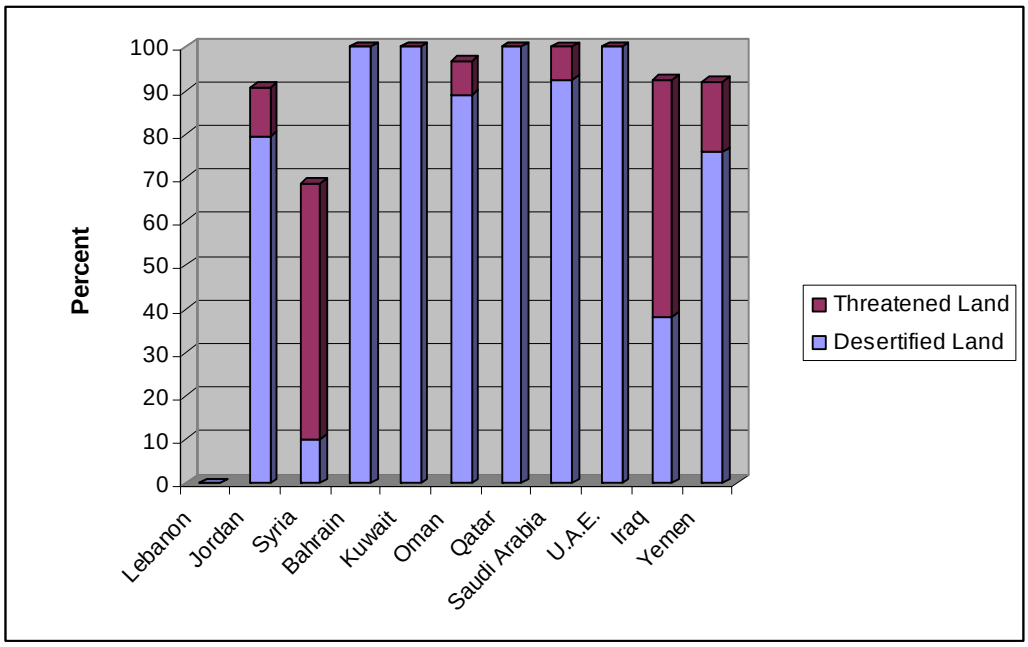
Figure 2-1 Map of West Asia Countries

It is important to stress that all these countries differ drastically in their social, economic, political, and ecological characteristics. The sections that follow describe these differences with the aim of establishing a system for grouping these countries for further analysis.

2.1 Physical Conditions

The climate in West Asia varies from arid and semi-arid in the Arabian Peninsula to Mediterranean in Lebanon and Cyprus. Most of the countries in the region suffer from scarce water resources such that desertification has become a major environmental threat (Figure 2-2). In many gulf countries, namely Bahrain, Kuwait, Qatar, and the United Arab Emirates, desertification has affected the entire land area.

Figure 2-2 State of Desertification in Arab Countries, 1996



Source: Arab Organization for Agricultural Development (2002), Study of Desertification Monitoring Indicators in the Arab Region

Table 2-1 below shows the proportion of non-arable land to total land area in West Asia countries. In most countries, over 80% of the total land area is non-arable.

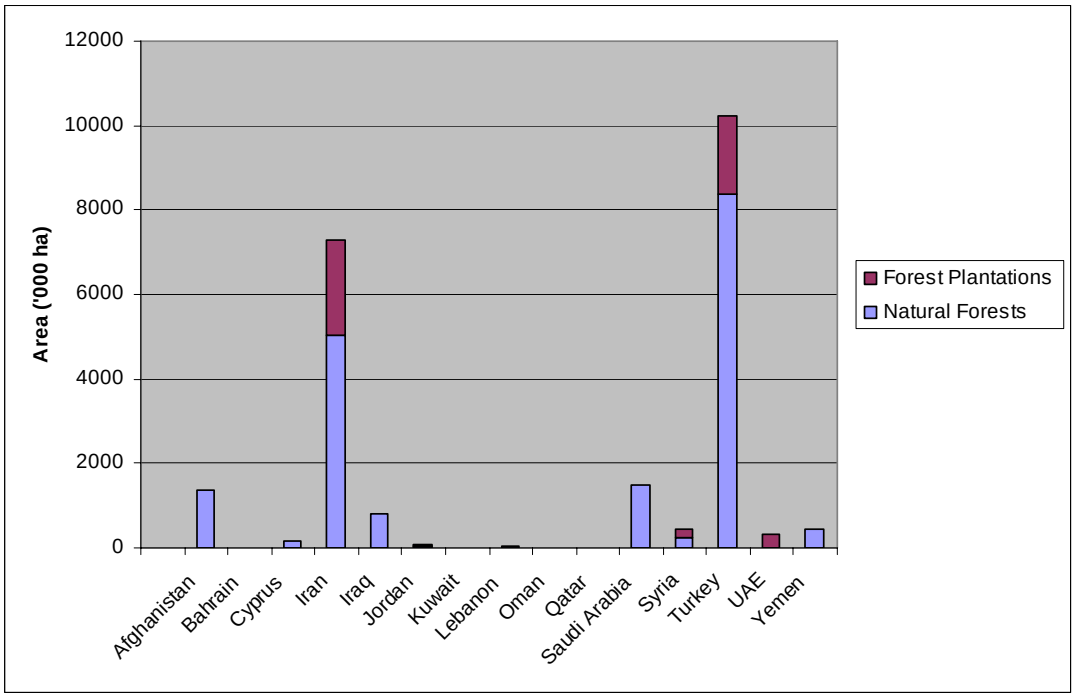
Table 2-1 Total and Non-Arable Land Areas of West Asia Countries, 2002

Country	Total Land Area (1000 ha)	Non-Arable Land	
		Area (1000 ha)	Total % Land Area
Afghanistan	65,209	57,155	87.6
Bahrain	71	65	91.5
Cyprus	925	811	87.7
Iran	164,820	146,532	88.9
Iraq	43,832	37,647	85.9
Jordan	8,921	8,493	95.2
Kuwait	1,782	1,767	99.2
Lebanon	1,040	710	68.3
Oman	30,950	30,869	99.7
Qatar	1,100	1,079	98.1
Saudi Arabia	214,969	211,175	98.2
Syria	18,518	12,957	70.0
Turkey	77,482	48,440	62.5
U.A.E.	8,360	8,094	96.8
Yemen	52,797	51,128	96.8

Source: FAO Statistical Databases Website

In 2000, the area of forested land in West Asia was 22,710,000 hectares, about 4.7% of the total land area, with Cyprus and Turkey having most percent forest cover, while Turkey and Iran have the largest forest areas (Figure 2-3) (FAO 2000).

Figure 2-3 Area of Natural Forest and Forest Plantations in West Asia Countries



Source: FAO (2001), Global Forest Resources Assessment (FRA) Report 2000

Despite this low rate, the presence of woodlands, mangroves, rangelands, and urban trees still plays an important role in enhancing the quality of life of the population, as well as conservation of the environment and its limited resources.

As the region is facing the threat of desertification, maintenance and propagation of what is left of the green cover has become essential. Nevertheless, the importance given to forests and forestry vary considerably between countries and will be discussed in Chapter 4 of this report.

2.2 Demographic Trends

2.2.1 Current and Projected

Demographic indicators for West Asia are shown in Table 2-2, which gives data from 1975 till 2002 and projections for the year 2015.

Table 2-2 Demographic Indicators for West Asia, 2002

Country	Population in 2002 (in million)	Population Density (population/km²)*			Annual Population Growth Rate (%)		Population Under 15 Years (% of total)	
		1975	2002	2015	1975-2002	2002-2015	1975-2002	2002-2015
Afghanistan	22.9	22	35	55	1.7	3.4	43.4	42.7
Bahrain	0.7	435	1014	1304	3.5	1.8	29.2	23.2
Cyprus	0.8	65	86	97	1	0.6	22.1	18.9
Iran	68.1	21	42	50	2.6	1.4	32.6	26.8
Iraq	24.5	25	56	78	3	2.6	41.4	37.3
Jordan	5.3	21	60	79	3.7	2.1	38	31.6
Kuwait	2.4	56	135	191	3.3	2.4	26.1	22.6
Lebanon	3.6	273	352	410	1	1.2	29.6	24
Oman	2.8	4	13	18	4.1	2.7	37.2	36
Qatar	0.6	18	55	64	4.7	1.3	26.6	21.7
Saudi Arabia	23.5	3	11	15	4.4	2.5	39.1	34.5
Syria	17.4	41	95	125	3.1	2.2	38.3	32.2
Turkey	70.3	53	91	107	2	1.2	30.7	25
U.A.E.	2.9	6	35	43	6.5	1.5	25.8	20.8
Yemen	19.3	13	37	58	3.8	3.6	48.7	47.2

Source: UNDP (2005), Human Development Report, 2004, *Population density was obtained by dividing the population from the HDR by the land area as per FAO 2001 data.

The numbers show that the country with the highest density is by far Bahrain, with 1,014 population/km², followed by Lebanon with 352 population/[22]. The least populated are countries with large desert areas such as Saudi Arabia (11 population/km²) and Oman (13 population/km²).

Regarding population growth in the region, it is usually positive but decreasing as a result of strong government commitment to improve family planning, as well as the changes in lifestyle of the population. The two exceptions to this trend are Lebanon and Afghanistan, where the rate is expected to slightly increase by 2015. The highest growth rates are in all gulf countries[1], Yemen, and Jordan. The exceptionally high growth rate in the U.A.E. (6.5%) is attributed to the large number of expatriates working in the country.

The age structure in West Asia is generally marked by a high percentage of youths, with those under 15 years composing between 22.1% in Cyprus to 48.7% in Yemen. Countries with a high percentage of young population are Yemen, Afghanistan, Iraq, Saudi Arabia, Syria, Jordan, and Oman. As a result of the reduction in population growth, the percent of young population is also expected to decrease but will still remain high in some countries, especially Yemen, Afghanistan, and Iraq.

2.2.2 Potential Impact on Forests

Demographic variables are a major influencing factor on forests, trees, and rangelands in the region, especially when other factors are at play. The total increase in population in the next two decades, for example, will require provision of the citizens with their needs of housing, food, energy, and infrastructure services. This will place pressure on land whether through urban development or expansion of agricultural lands, all of which will render forestry a lower priority.

[1] Gulf countries are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates

Migration from rural to urban areas, a clear trend in the region, will also impact forests, either positively or negatively. This impact will depend on economic changes and socioeconomic development. An example of a positive impact would be that abandonment of agricultural land in previously forested land may lead to reforestation, such as in Cyprus and Lebanon. Urbanization leads to increased stress on services, as well as pressure on surrounding lands, some of which may be forests, as in the case of Afghanistan and Jordan.

Another issue related to the high rate of urbanization is the potential marginalization of tribal and traditional roles that organized grazing in the past, which will have a major impact on the pattern of management and utilization of rangeland and forestry resources (described in 4.3.2). Urbanization will increase even more due to the change in the age distribution, such that those who are now under the age of 14 years and will reach adulthood in the next two decades will have a different lifestyle, preferring to reside in an urban environment and turning away from agricultural vocations.

Demographic changes are considered predetermined and despite the fact that they will have a strong impact on forestry through increased population demand and urban activities, they are not expected to contribute much to scenario building. The policy of governments to develop rural areas in order to limit migration may have some impact, but it remains limited.

2.3 Socioeconomic Indicators

The socioeconomic development of the country usually gives an indication of its priorities. High socioeconomic development, i.e. strong economy, available health and infrastructure services and high level of education, will probably mean that environmental conservation, including forest protection and development, is of a high concern for both the government and the population.

Table 2-3 shows selected indicators obtained from the United Nations Development Programme (UNDP) Human Development Report for 2004 and give a general overview of the socioeconomic situation in each of these countries.

Table 2-3 Economic Indicators for West Asia Countries, 2002

Country	GDP in billion US$	GDP per capita US$	GDP per capita Annual Growth % 1990-2002
Afghanistan	4.0	-	-
Bahrain	7.7	11,007	1.5
Cyprus	10.1	13,210	3.2
Iran	113.7	1,652	2.2
Iraq	-	-	-
Jordan	9.4	1,799	0.9
Kuwait	35.2	15,193	-1.7
Lebanon	18.3	3,894	3.1
Oman	20.3	8,002	0.9
Qatar	17.5	28,634	-
Saudi Arabia	188.8	8,612	-0.6
Syria	20.0	1,224	1.8
Turkey	183.9	2,638	1.3
U.A.E.	71.0	22,051	-
Yemen	10.0	537	2.5

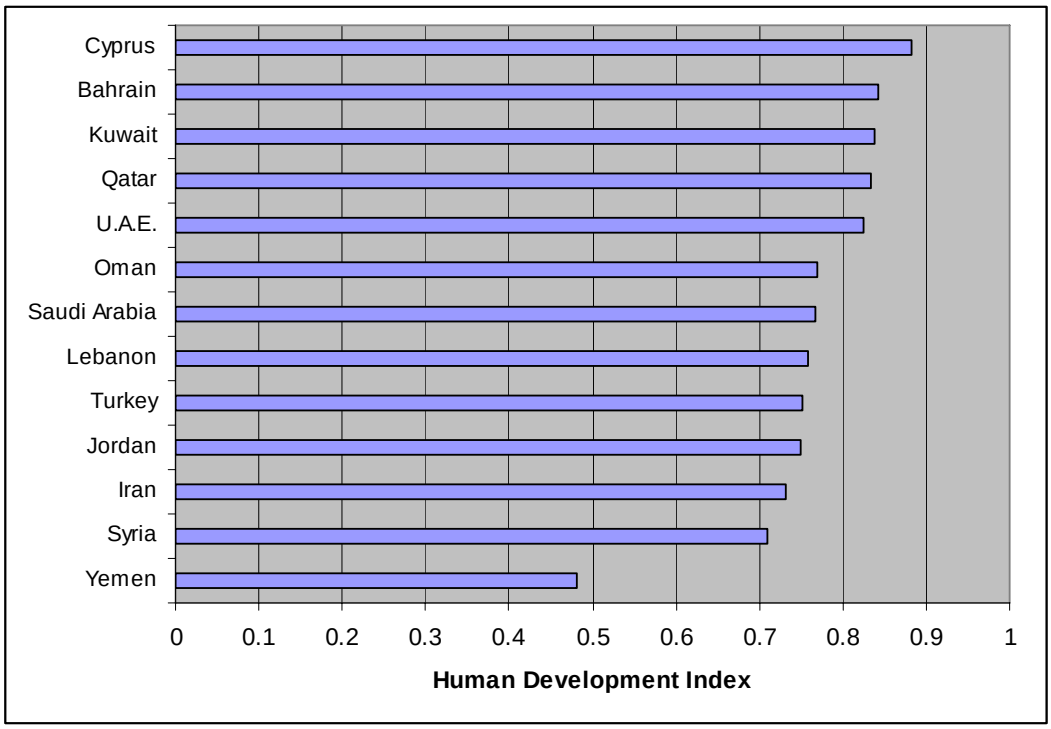
*1990-2002, Source: UNDP (2005), Human Development Report for 2004

The table shows that the most affluent countries in the sub-region (as per the GDP per capita) are Qatar, U.A.E., Kuwait, Cyprus, and Bahrain. The least affluent population is that of Yemen and Syria. Afghanistan is also considered a low-income country, although information for it is not readily available.

Figure 2-4 shows the human development indices for most countries in West Asia (except for Afghanistan and Iraq) according to the Human Development Report of 2004[2].

[2] According to the UNDP "The human development index (HDI) is a composite index that measures the average achievements in a country in three basic dimensions of human development: a long and healthy life, as measured by life expectancy at birth; knowledge, as measured by the adult literacy rate and the combined gross enrolment ratio for primary, secondary and tertiary schools; and a decent standard of living, as measured by GDP per capita in purchasing power parity (PPP) US dollars."

Figure 2-4 Human Development Index for West Asia Countries, 2004



Note: Afghanistan and Iraq are not ranked. Source: UNDP (2005), Human Development Report for 2004

The indices show that Cyprus, Bahrain, Kuwait, Qatar, and U.A.E. are ranked as having high human development while Yemen is ranked as having low human development. The rest of the countries are considered to have medium human development.

Economic diversity indicates how robust the conditions in the country are. An oil-based economy such as in the Gulf is highly vulnerable to global events. If it is service-based, like Lebanon and Jordan, then it is highly influenced by security conditions in surrounding areas. A diverse economy will be more stable and resistant to external factors and therefore contributes to sustainability of development. A trend emerging in the region is globalization and liberalization of the economy, with all Gulf countries apart from Saudi Arabia[3] as members of the World Trade Organization, as are Cyprus, Turkey and Jordan. Yemen, Lebanon, Iraq, and Afghanistan are all monitoring members. Most recently, Iran has been allowed to enter into negotiations for membership with the organization.

A good example of the impact of lack of economic diversity on forestry is Iran, where the sector has always been funded by the government due to the high oil sale revenues. As these revenues are now expected to decrease, funding for this sector will be drastically affected. There is a trend towards decentralization and diversification of the Iranian economy for this reason. A similar trend is also observed in all Gulf countries. At the other end of the spectrum, Cyprus, especially since its accession to the European Union (EU), has a stable and diverse economy. The forestry sector there is supported by both the government and the EU.

[3] Saudi Arabia is currently negotiating with the WTO to obtain membership.

Dependence on land is another element of economic diversity and may have a direct impact on forest land. For example, the agricultural sector is important in countries such as Turkey, Yemen, Jordan, and Syria, where there is high pressure on land for agricultural activities. Traditional farming is not very economically attractive in Lebanon such that land is abandoned for more profitable work in cities. On the other hand, although agriculture has contributed little to the Iraqi economy before the war, it is now playing an increasingly important role. Nevertheless, if revenue from oil imports resumes, dependence on agriculture will drop again.

2.4 Political and Institutional Changes

Characteristics of a political and institutional system include the level of decentralization, as well as public and civil society participation in decision-making. In West Asia, these characteristics range from a country such as Cyprus, an EU country with a decentralized, participatory system, to a highly centralized system with minimal public participation such as in countries of the Gulf region. In Lebanon, Jordan, and to a lesser extent Syria, there is a relatively active civil society but the system is still considered centralized.

Yemen and Afghanistan have a unique tribal system, such that the central government has little control outside of the capital. The remainder of the country is governed by landlords and tribal leaders. Iraq is another special situation since the former system has collapsed as a result of the U.S. invasion and the country is currently in disarray after being under the strict control of the former government (Box 2-1).

Box 2-1 Political Conditions in Iraq

Iraq now finds itself in a period of uncertainty and transition after more than three decades of Ba'ath party rule. Following the end of Saddam Hussein's rule in the spring of 2003, Iraq was governed for a year by the "Coalition Provisional Authority" led by the United States and the United Kingdom. On March 8, 2004, the Governing Council signed an interim constitution. On June 28, 2004, the CPA transferred power to a sovereign Iraqi interim government, and the CPA dissolved. A permanent constitution is to be written during 2005, following national elections that were held in January. Two years after the overthrow of Saddam Hussein, lack of security is still a major obstacle to development of the new governance system.

Since the 1970s and during the period of sanctions against Iraq, the Kurdistan Regional Government had official autonomy over the northern governorates of Iraq. This area contains the majority of Iraq’s forests, which, until recently, had been managed and protected by the regional government. Currently, due to the worsening security conditions in the country and lack of government control, forests are being exposed to overgrazing, illegal logging, and overutilization.

Source: Energy Information Administration Website and Iraq Country Report

As things stand, it is not expected that much will change in terms of the political and institutional systems in the region, except in Iran and Iraq. Political reform in Iran is always looming on the horizon while Iraq’s current conditions are considered temporary as the country still has the resources, both human and financial, in order to redevelop itself.

The importance of a decentralized system with significant public participation to forestry is highly dependent on the environmental awareness of the population and their interest in maintaining forests. Urbanization in countries may lead to an increase in level of education, culture, and awareness, which in turn may increase interest in forests and the environmental services they provide.

In a highly centralized system such as that in Saudi Arabia and the United Arab Emirates, when the top authorities are concerned about increasing green cover in the country, then forestry will be a national priority. Still, this is neither sustainable nor permanent. In countries such as Jordan and Yemen, the interest of the international community in forestry is a major influence on government policies. Implementation of forest development programs is therefore dependent on whether funding from donor agencies is available or not.

2.5 Grouping of Countries

For the purpose of this Thematic Report, the countries of West Asia have been divided into three different groups based on general sociopolitical and economic conditions described above. The countries of Iraq and Afghanistan were not grouped as they were considered to be in highly volatile political and security situations. Yemen, which is suffering from exceptionally low human development conditions despite being located in the oil-rich region of the gulf, was also not grouped. The groups are shown in Table 2-4.

Table 2-4 Country Groups by General Sociopolitical and Economic Indicators

Group Number	Countries	Description
Group 1	Cyprus, Iran, Turkey	Relatively diverse and stable economies
Group 2	Jordan, Lebanon, Syria	Countries in the transitional phase of development, limited resources
Group 3	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates	Gulf countries, members of the Gulf Cooperation Council, strongly dependent on fossil fuels
Others	Afghanistan, Iraq, Yemen	In exceptional circumstances, political, economic, and social insecurity

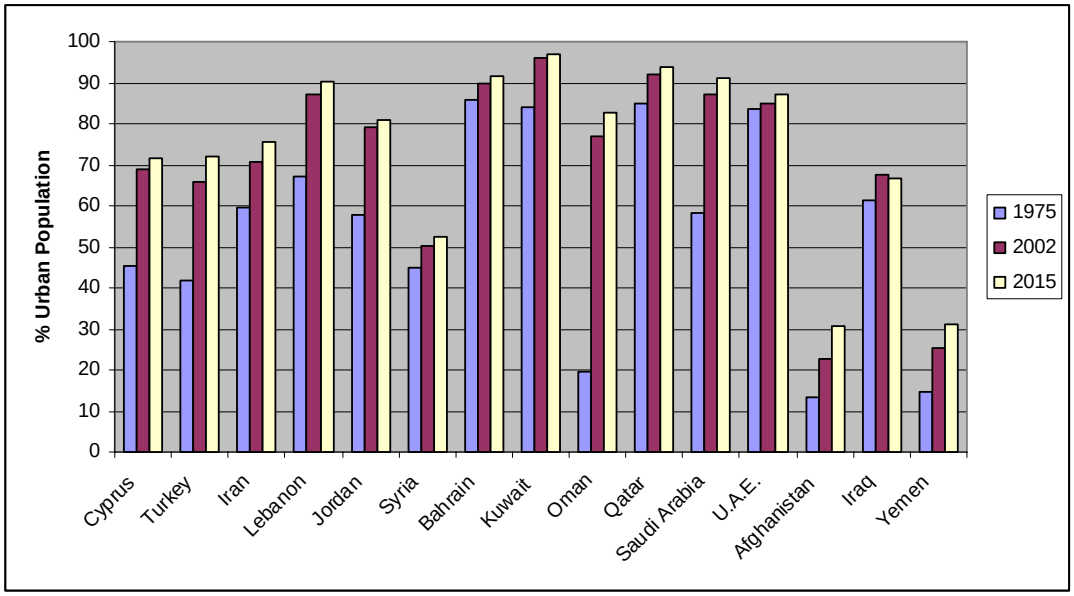
3 LAND USE

In a region with mostly non-arable land, competition for land between the various sectors is inevitable. Nevertheless, it is highly dependent on availability of resources, especially water. This section will focus on the changes in the different types of land use, namely urban, agriculture, range, and forests and the dynamics between them as it affects the forestry sector.

3.1 Urbanization

Migration from rural to urban areas is common in most of the countries with varying rates. Figure 3-1 shows the rate of urbanization for the years 1975 and 2002 and the projection for 2015 for all West Asia countries.

Figure 3-1 Trend of Urbanization in West Asia Countries, 1975 – 2015



Source: UNDP (2005), Human Development Report, 2004

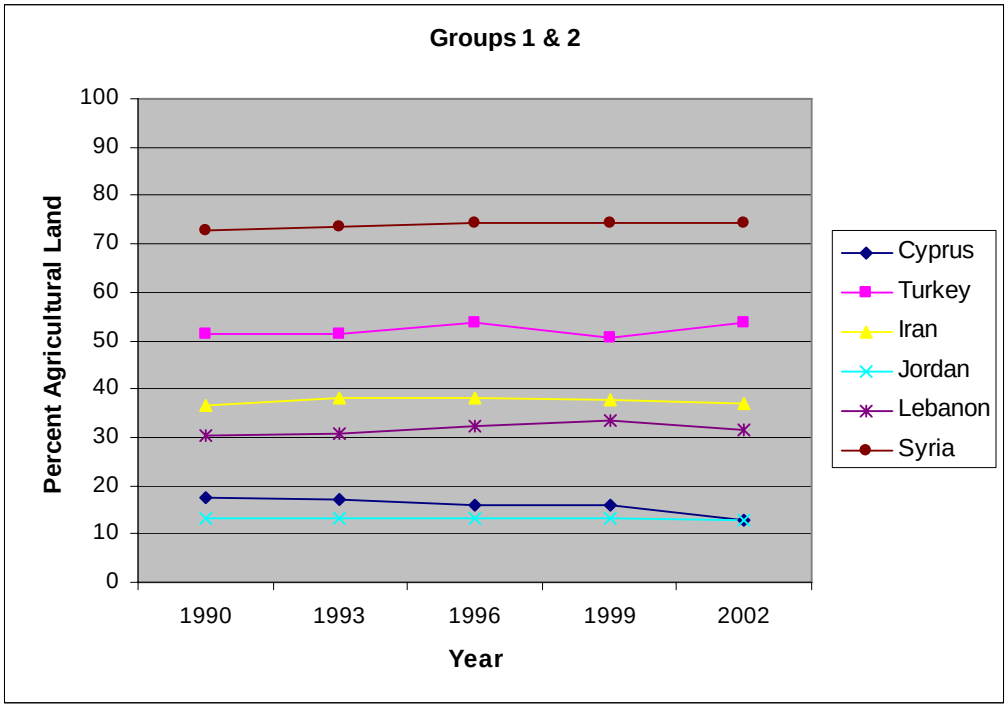
The figure shows that between 1975 and 2002, most countries experienced high urbanization movements, most obviously in Oman, Cyprus, Turkey, Lebanon, Jordan, and Saudi Arabia. Migration in these countries has been relatively stabilized with little anticipated movement to urban areas for 2015. In some Group 3 countries, such as Bahrain, Qatar, and United Arab Emirates, the urban population has always been high because most of the land area is uninhabitable and rural activities are rare.

An exceptional case is observed in Iraq, whereby the percent urban population is expected to slightly decrease in the next 10 years. This may be due to the increased dependence of the country on agricultural activities as a result of the worsening security situation. A high percentage of rural population is found in the poorly developed countries of Yemen and Afghanistan. Urbanization is occurring in these two countries at a slow pace.

3.2 Agricultural Land

There is no clear trend in terms of development of agricultural land among the countries of West Asia. In Groups 1 and 2, the percentage of agricultural land to total land area has been stable to slightly decreasing in most countries, except for Turkey and Lebanon, where it fluctuates (Figure 3-2).

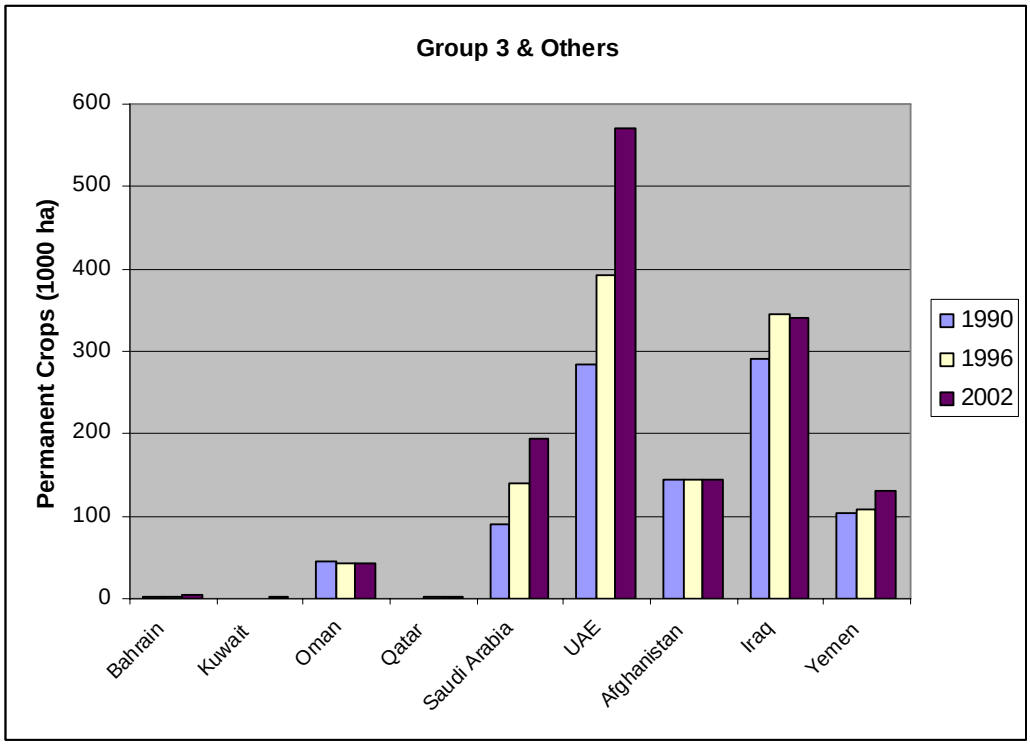
Figure 3-2 Percent Agricultural Land of Total Land Area in Countries of Groups 1 and 2, 1990 – 2002



Source: FAO Statistical Databases Website

Despite the lack of water resources in the Gulf, the area of permanent crop land in Group 3 countries has been increasing for the past decade (Figure 3-3). This is a result of government support to this sector, which will be discussed in more detail in Section 4 on agricultural policies. Agricultural lands constitute a major part of the green areas in these countries. Private agricultural lands are also usually surrounded by green belts in order to protect the farms from the threat of desertification, further enhancing green cover in these areas.

Figure 3-3 Permanent Crop Land in Countries of Group 3 and Others, 1990 – 2002



Source: FAO Statistical Databases Website

As for the other countries, Iraq and Yemen have experienced a slight increase in permanent crop land from 1990 to 2002. On the other hand, the data on Afghanistan does not show any change in land area. This may be due to the lack of information from the country as a result of the poor security conditions there.

3.3 Rangelands

A large proportion of the area of West Asia is considered rangelands. According to FAO statistics, in 2002, permanent pasture land occupied around 42% of the total land area (FAO Statistical Databases Website). Table 3-1 shows the change in this area between 1990 and 2002 in all countries. There is apparently no clear pattern in the change of the pasture land areas. In most Group 3 countries, Iran, Afghanistan, Iraq, and Yemen, there was no reported change in land area during that period. Cyprus and Jordan experienced a decrease of pasture land while Lebanon, Syria, Saudi Arabia and U.A.E. showed an increase.

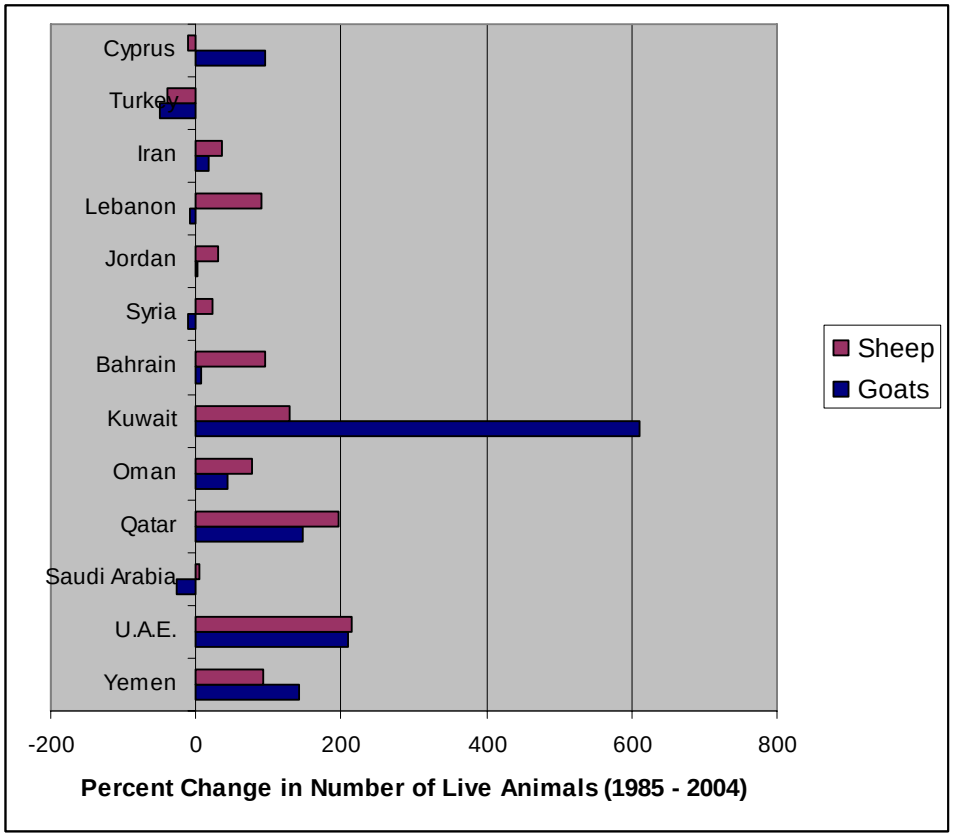
Table 3-1 Pasture Land and Percent Change in West Asia, 1990 – 2002

Country	Area of Pasture Land (1000 ha)		Change
	1990	2002	
Group 1			
Cyprus	5	4	-20.00%
Turkey	12,000	13,167	9.73%
Iran	44,000	44,000	0.00%
Group 2			
Lebanon	12	16	33.33%
Jordan	791	742	-6.19%
Syria	7,869	8,338	5.96%
Group 3			
Bahrain	4	4	0.00%
Kuwait	136	136	0.00%
Oman	1,000	1,000	0.00%
Qatar	50	50	0.00%
Saudi Arabia	120,000	170,000	41.67%
U.A.E	230	305	32.61%
Others			
Afghanistan	30,000	30,000	0.00%
Iraq	4,000	4,000	0.00%
Yemen	16,065	16,065	0.00%

Source: FAO Statistical Databases Website

One of the major causes of deterioration of rangelands is usually overgrazing. Raising livestock is an important activity in the West Asia countries and provides livelihood for a significant proportion of the rural population. Figure 3-4 illustrates that in the past two decades, the number of sheep and goats has increased manifold in several countries, especially Group 3. Only in Turkey has the number of both sheep and goats decreased. In Lebanon, Syria and Saudi Arabia, the number of sheep increased while that of goats decreased. In Cyprus, the opposite occurred, such that the number of sheep decreased while that of goats increased.

Figure 3-4 Change in Number of Live Animals (Sheep and Goats) in West Asia Countries, 1985 – 2004

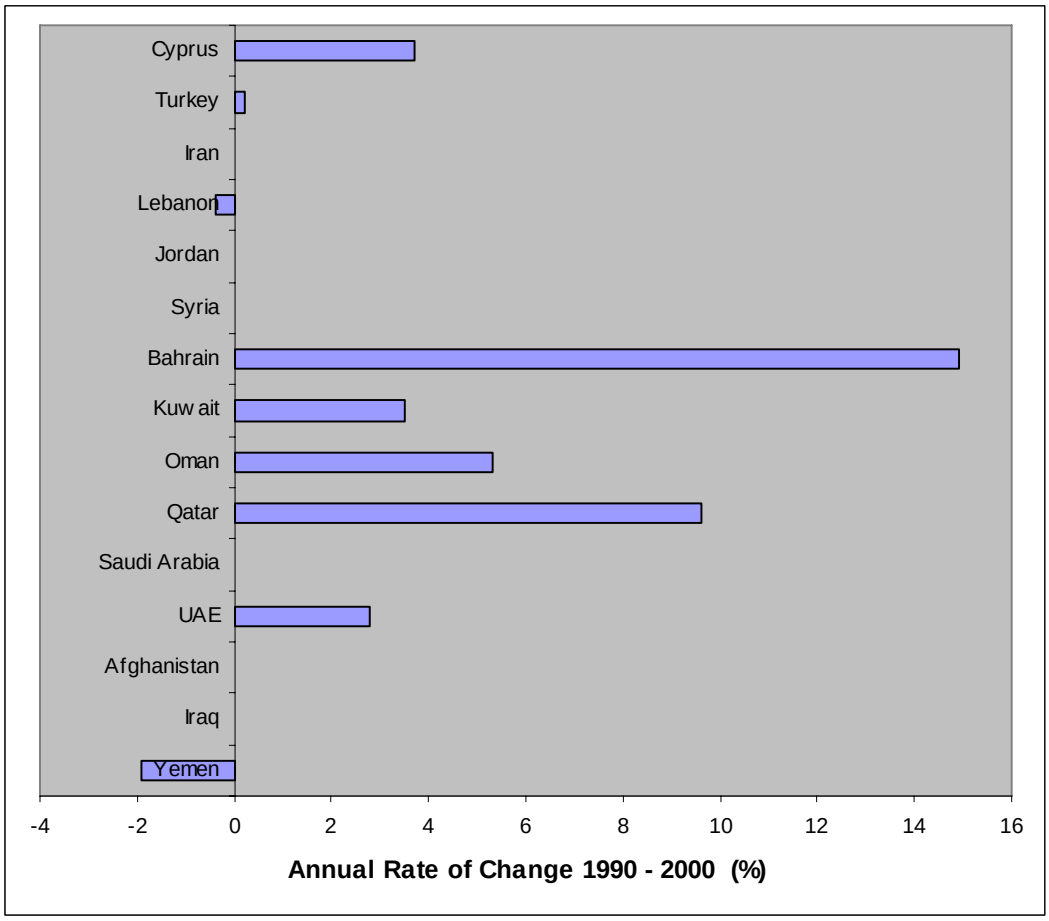


Source: FAO Statistical Databases Website

3.4 Forest Land

Regarding change in forest cover, Figure 3-5 shows that Lebanon and Yemen experienced deforestation between 1990 and 2000. In the same period, Cyprus, Kuwait, Oman, Qatar, Turkey and U.A.E.'s forest cover increased. The FRA 2000 does not show that Afghanistan is losing its forest cover, but this could be because data on this country is not readily available. Other sources cite that the rate of deforestation in country, especially due to illegal logging, is so critical that if it persists, no forest is expected to remain in 25 years time (UNDP 2005b).

Figure 3-5 Percent Annual Change Rate (1990 – 2000) of Forest Cover in West Asia Countries



Source: FAO (2001), Global Forest Resource Assessment Report 2000

3.5 Land Use Dynamics

The relationship between the different types of land uses in West Asia varies drastically and depends on many factors such as availability of water, proportion of arable land, and economic activity. For example, encroachment of urban areas on forest land has been cited in some of the countries, most notably in Group 1 and Group 2, as well as in Afghanistan. Other activities such as industry and tourism are also leading to deforestation in these countries.

Clearing forests for agricultural purposes and overgrazing were cited another cause of forest degradation in Group 2 countries of Jordan, Lebanon and Syria despite efforts to prevent it (respective Country reports). In Cyprus, it was noted that abandonment of agricultural land has lead to increased private forests (Cyprus Country Report).

In Group 3 countries, the link between agricultural land and forest land is not as clear. Figure 3-3 and Figure 3-5 show that both permanent crop and forest lands are increasing in these countries. This is due to government support to both sectors. As the land area in this Group is large, competition for land between agriculture and forestry is not considered to be a major issue.

In general, there is a lack of clear land use planning methods in the West Asia region. This problem is exacerbated by fragmentation of land parcels, which has been cited as a major obstacle to protection of forests in countries of Groups 1 and 2 despite efforts made to eliminate it (Box 3-1).

Box 3-1 Land Consolidation in Cyprus and Turkey

In Cyprus and Turkey, land consolidation operations, i.e. unifying land parcels in order to eliminate the structural shortcomings of agriculture, started in the 1960s in order to tackle the problem of land fragmentation. This process had limited success in Cyprus, which enacted the Land Consolidation Law in 1969 in order to systematically implement the consolidation projects. In Turkey, the scope of the consolidation was even more limited as there was no special law in force and works were carried out without taking into consideration the reasons why it was being done, apart from a requirement of the World Bank as a condition to use of its credit.

Source: UNFF, 2005 and Gun, 2003

In Jordan, a new policy fosters "the adoption of a land use plan to address the negative impacts that forest conservation is having on local communities. The plan should classify lands according to their production capabilities, which will lead to the allocation of more lands to forestry" (FAO Forestry Website). Nevertheless, due to the increased cost of urban land, people are resorting to purchasing agricultural lands and not using them for agricultural purposes (Jordan Country Report). This indicates that such a policy may be quite difficult to implement. Lebanon's land use problem is even more complicated as most of the land is not even classified (Box 3-2).

Box 3-2 Land Use Conflict in Lebanon

According to Articles 7 and 8 of the Code of Urbanism, a detailed urban plan should determine "the lands to be protected for agricultural use". Enforcement of these articles was problematic because of the high rate of urbanization and landlords avoiding formal and legal classification of lands for rural and agricultural purposes. In fact, almost 90% of the country's land is not classified. As a result, the country is regarded as chunks of real estate to be sold to the highest bidder – regardless of the environmental cost – and conflict over land use is common in all areas.

Source: Saab, 2004 and Lebanon Ministry of Agriculture, 2003

In countries where the government is not capable of fully enforcing legislation, most prominently in war-ridden Iraq and Afghanistan, and to a lesser extent Yemen, ownership of land causes conflict, especially taking into consideration the number of internally displaced persons who may return to their homes in the near future. In Afghanistan for example, the number of returning refugees is expected to be between 1.4 and 2 million (Azimi 2002).

4 POLICY, LEGAL AND INSTITUTIONAL CHANGES IN THE FORESTRY SECTOR

4.1 Policies and Strategies

Due to the ecological conditions in the region, the economic return from forest products is very low. Only in rare cases such as Turkey and Cyprus have wood products been utilized in significant amounts. In fact, the share of forestry in the GNP of Turkey is around 1.8% (Turkey Country Report). Therefore, interest in forest conservation and development in West Asia is directed towards protective and environmental services instead of forestry products, even in countries where forestry contribute to the national economy.

The general policy trend for forest and rangeland protection in the entire West Asia region is usually in the establishment of protected areas. Even though this measure is important for biodiversity conservation, if it not coupled with a comprehensive forest management plan, it may cause neglect of the unprotected areas.

In Group 1 countries of Turkey, Cyprus, and Iran, forests are considered as important national resources and a significant amount of resources is allocated for their protection and development. This may in part be attributed to Cyprus's recent accession to the EU and Turkey's bid to join. In fact, Cyprus already has its own National Forestry Policy (Cyprus Country Report) and Programme. The program (NFP) emphasizes the shift of importance of forests from timber production to provision of environmental services (UNFF 2005). Turkey has already completed its NFP but is still waiting for government approval (Turkey Country Report). Nevertheless, the country does have a Forestry Master Plan and emphasizes forest protection in its Five Year National Development Plan. As for Iran, their forestry policy aims at the ecological sustainability of forests, ranges, and watersheds (Iran Country Report) (Box 4-1).

Box 4-1 Iran's Long-term Forestry Goals

The long-term goals of the forestry sector in the Islamic Republic of Iran include:

- Maintaining forest and range health through soil protection as well as their biological diversity
- Constant utilization of forest and range products and services
- Restoring degraded forests and ranges
- Developing forest resources at national level
- Protecting and restoring natural ecosystems in watershed basins
- Combating desertification and land degradation

To achieve these long-term goals, the forestry sector observes the following principles in planning, managing, and implementing

- Developing participation of all stakeholders in forestry activities
- Preserving biological diversity
- Maintaining and developing functions of forest and range ecosystems
- Observing local rights of native peoples
- Using all potentials of forest and range ecosystems in watershed basins
- Monitoring and assessing all plans and projects.

Source: Iran Country Report

The Group 2 countries of Jordan and Syria consider forests important as part of their environmental conservation and rural development schemes but not enough to allocate them with significant funding from the government budget (Jordan and Syria Country Reports). Policies for protection of forests in these countries are part of the Agricultural Policy of Jordan and the Biodiversity Strategy of Syria. Lebanon invests more in rehabilitating its forests and has recently launched its National Reforestation Plan, which has a budget of US$16 million for the next five years. Its long term 30-year objective is to obtain 20% forest cover in the country (Lebanon Ministry of Environment Website and Country Report). This target may be a little unrealistic to achieve as recent forestation activities in all three countries has had limited success due to improper planning and use of inappropriate methods of planting.

Regarding the National Forestry Programme, Lebanon and Jordan are both strongly committed towards their formulation and implementation and are currently in the process of seeking funding for that purpose (FAO Forestry Website). In fact, the interest of the international community is an important factor that determines the priority given to the forestry sector in these countries, and as a result, the amount of resources allocated to it.

For the arid and semi-arid countries of Group 3, Saudi Arabia and the U.A.E. seem to have allocated most resources towards greening activities compared with the remaining countries in this group. Saudi Arabia has already prepared its draft Strategy and Action Plan for Forestry. The Emirates government has been providing strong financial support for the Forestry Department in Al Ain to undertake a large planting program since 1973. It provides farmers with subsidies and incentives for date palm cultivation and encourages the municipalities to green urban areas (U.A.E. BTO). In Bahrain, Kuwait, and Oman, there does not seem to be any policies regarding protection of forests. The Agricultural Policy in Qatar aims to protect trees and bushes through administrative measures such as issuing legislations

and assigning responsible authorities for their enforcement. Qatar also places importance on mangroves, has declared them as nature reserves, and encourages their expansion.

For Group 3 countries, it seems that the oil sector is actually funding the forestry sector, raising the question of sustainability of such a policy due to the high costs incurred.

In the other countries of Afghanistan, Iraq, and Yemen, there are currently no policies regarding forestry as governance is still very weak. Some progress is being made in Afghanistan where the government is aiming to increase the area of orchards by over 70% (from 80,000 ha in 2003 to 138,000 ha in 2015) (Afghanistan Transitional Government 2004). Due to the limited resources in Yemen and Afghanistan and the current security conditions in Iraq, the countries are highly dependent upon external assistance and therefore their policy is strongly affected by that of foreign aid agencies and the international community in general.

4.2 Other Relevant Policies

Since the West Asia region has little forest cover, it is expected that there is no specific forest policies for most of the countries. Therefore, it is important to look at other policies that may have a significant impact on the sector.

4.2.1 Environmental Conservation

The countries of West Asia are adamant on riding the emerging wave of environmental protection that is now a key global concern. Most of them are signatories of international treaties such as the United Nations Convention on Biodiversity Conservation, United Nations Framework Convention on Climate Change, Convention on the International Trade of Endangered Species, and the United Nations Convention to Combat Desertification (UNCCD). Nevertheless, implementing the stipulations of these conventions requires financial resources that are not available in many countries, mainly Group 2 countries as well as Yemen and Afghanistan. Implementation in Group 3 countries are dependent on oil revenues as well as the willingness of the government to pay for measures aimed solely at environmental protection.

When discussing environmental policies as they relate to the forestry sector, two main issues require highlighting. The first is the combating desertification policy, through which afforestation is used as an important protective measure. Apart from Iraq, all countries in West Asia are party to the UNCCD. Among these countries, Lebanon, Saudi Arabia, Syria, U.A.E., and Yemen have already drafted their National Action Programs for combating desertification and are implementing afforestation schemes for that purpose. Nevertheless, progress towards safeguarding land from desertification has been slow in most countries. One of the main strategic challenges faced by the region is the limited capacity to "institutionalize effective mechanisms to promote the participation of natural resource users in the definition of policies, and in the design and implementation of actions to combat desertification" (UNCCD Website).

The second issue relates to water policies, which determine the allocation of these scarce resources. These are highly relevant in water-scarce countries, specifically in the gulf region, where large amounts of water are being allocated for agriculture and afforestation activities. The problem is that the water supply is dwindling and it is becoming even more costly to

provide it, raising concern regarding the sustainability of such activities. In any case, the governments of these countries, mainly Group 3 and Jordan, are embarking on an alternative plan, which is to utilize treated wastewater and saline water to irrigate green areas.

4.2.2 Agriculture

Agricultural policy in the region is considered relevant to the forestry sector in many countries. In arid and semi-arid countries such as Group 3 countries of Saudi Arabia, Oman, and U.A.E., as well as in Jordan and Iran, the governments actively support the agricultural sector. In order to promote agriculture in Saudi Arabia, the government distributes land for agricultural purposes. By 1993, more than 2.5 million ha of land were distributed (Saudi Arabia Ministry of Agriculture Website). Another example is in Jordan, where the government encourages agricultural development by investing in the provision and optimal utilization of water resources (Jordan Agricultural Policy Charter). Box 4-2 briefly outlines the needs and outlook of the agricultural sector in Jordan according to its Agricultural Policy Charter.

Box 4-2 Needs and Outlook of the Agricultural Sector in Jordan

Jordan's agricultural policy aims at achieving:

- An agricultural sector that constitutes a significant part of the national economy through competitive and market-oriented agricultural production
- An agricultural sector that contributes to the protection, preservation, and sustainability of the natural environment by adopting land-use patterns and technologies which are sustainable and in harmony with the principles of preserving, soil, water, flora, and fauna.
- An agricultural sector that constitutes a basis for integrated socio-economic development of the rural areas
- An agricultural sector depending on producers who, along with their families, fully participate in the country's economic and social progress
- A livestock production system, which involves cultivated agricultural land and is efficient and suitable for domestic animal husbandry
- A farming system making full use of available agricultural technologies for the production of high-quality food and other agricultural products, according to market and consumer demand
- An agricultural sector where scientific and technological progress is being adopted and utilized to serve society and to protect and enhance the environment for the present and for the future.
- An agricultural sector which supports and maintains the cleanliness, beauty and diversity of the Jordanian countryside
- An agricultural economy which provides investment opportunities and motivation for coming generations

Source: Jordan Agricultural Policy Charter, 1996

In most Group 3 countries such as Saudi Arabia, U.A.E., and Oman, the government's goal is to achieve self-sufficiency in food production (Respective Country Reports). As a result of this policy, the number of farms in the Emirates increased from 1,833 farms in 1988 to 38,239 farms in 2002, marking a 1,986% increase. This has lead to a decrease in natural rangelands (U.A.E. Country Report). A similar trend has also been documented in Saudi Arabia (Saudi Arabia Country Study). In fact, Saudi Arabia ranks first in the production of dates in the world. This huge production is attributed to government support and subsidies offered to palm tree farmers (Saudi Arabia Ministry of Agriculture Website). In Oman, the government has reduced the unit prices of electricity and diesel used for farming and agricultural projects,

with a policy to provide loans for all categories of farmers, such that priority is given to small farmers. Oman is actually the leading livestock producer in the Gulf region with a government policy to reduce dependence on imports (Nizwa Website).

As discussed in Section 3.5, there does not seem to be any competition for land between forestry and agriculture in Group 3. The fact that the country has limited water resources means that if water is not used for provision of food products from agriculture, it will not be utilised in the forestry sector. Actually, many of the farms in these countries are surrounded by protective green belts, serving to enhance green cover in the region. Nevertheless, the issue of sustainability of these activities, which are highly dependent on funding from the oil sector, is again raised.

4.2.3 Rural Development

The relationship between forests and rural communities is quite intricate, such that changes in one will have a direct impact on the other. The governments of Cyprus, Turkey, Iran, Lebanon, and Yemen place emphasis on rural development with the aim of improving the livelihood of the rural population and decreasing migration to urban areas. They also try to encourage local community involvement in sustainable forest management as one means of achieving that. Integrated rural development strategies, whereby involvement of the local community in forestry is emphasized in the national policy, are common in the development plans of these countries.

Table 4-1 shows a summary of rural development policies and programs in these countries while Box 4-3 describes the efforts made by the Iranian government in this regard.

Table 4-1 Rural Development Policies for Selected Countries in West Asia

Country	Programme / Plan	Summary
Cyprus	Rural Development Plan 2004 - 2006	Within this plan, the government provides financing for forest owners taking measures for the protection and conservation of their forest areas. The plan also provides for incentives for public and private owners to restore burnt areas through grants.
Turkey	VIII Five Year Development Plan 2000 - 2005	The government aims to contribute to the rural economy to decrease pressure on forests. It also plans to reduce the proportion of rural population and share of agriculture in the national economy.
Iran	4th Five Year Development Plan 2005 – 2010 (In preparation)	The government intends to merge agricultural and rural development efforts within the goal of economic liberalization while maintaining an emphasis on equitable distribution.
Lebanon	Rural Development Program	The program provides small and medium-scale farmer assistance which would lead to sustainable human development through start-up activities. These activities include the improvement of health, social services, education, and income-generating non-agricultural activities.
Yemen	The Second Five – Year Plan for Economic & Social Development 2001 - 2005	The plan aims at confronting the dual challenge of poverty and unemployment by encouraging investments to absorb the annual increase in labour force and particularly in labour-intensive activities such as agriculture, construction and small-scale manufacturing, through providing incentives to labour intensive methods and technologies and encourage their settlement in rural areas.

Box 4-3 Rural Development Achievements in Iran

Significant rural development achievements have been made over the course of the three Five Year Development Plans. In the 1988 – 1998 decade alone, 15,000 villages saw significant improvements in living conditions. Achievements include:

- 2.2 million ha of marginal lands put under cultivation
- 13 billion cubic meters of additional irrigation water controlled and managed
- 51000 km of graveled rural roads and 11600 km of asphalt rural roads built
- Electricity brought to 13700 villages
- Drinking water supply systems provided to 17500 villages and full sanitary systems to 15000 villages.

Source: World Bank, 2004

In Jordan, the government aims to improve conditions in rural areas through the Forestry Directorate of the Ministry of Agriculture by providing citizens with forest and range seedlings, investment instructions, grazing programs, work opportunities, diversification income sources, and land allocation (Jordan Country Report).

As all of these programs are relatively recent, the extent of their impact has not yet been demonstrated. It is also still not clear what effect they will have on forests and forestry.

4.2.4 Energy

There are two dimensions to the energy policy in the West Asia region, where some countries have huge amounts of oil reserves while others are dependent on increasingly expensive oil imports for energy. The first is the extent to which the oil sector is subsidizing the forestry sector while the second is whether the government is providing the citizens with energy sources in order to decrease their reliance on wood fuel.

In 2003, the West Asia region had 4 of the top ten petroleum net exporters in the world (Energy Information Administration Website). In fact, most of the countries in the region are highly dependent on oil revenues (Table 4-2).

Table 4-2 Export Figures for Oil-Producing Countries, 2003

Country	Oil Export (as Percent of Total Export*)
Bahrain	Around 60%
Iran	80 – 90%
Iraq	90% or more
Kuwait	95%
Oman	75%
Saudi Arabia	90 – 95%
Syria	50%
United Arab Emirates	30% of GDP
Yemen	70% of Government Revenue

*Unless stated otherwise. Source: Energy Information Administration Website

In these oil-rich countries, the governments have set out policies aimed at diversifying the economy in order to decrease their dependence on oil, while maintaining the country's wealth (Box 4-4).

Box 4-4 Future Outlook for the Energy Sector in Saudi Arabia until the Year 2020

The future outlook for the energy sector in Saudi Arabia includes the following:

- Maintaining the country's position in the world market
- Achieving the ideal production size and devoting oil revenues to future investment development projects
- Developing the country's natural gas resources and expanding its role in the sustainable development strategy in the long run, and therefore reducing dependence on charcoal for energy and decreasing forest utilization for energy

Source: Saudi Arabia Country Report

Until now, the most successful country in achieving this has been the U.A.E., such that in 2003, the non-oil sector contributed around 68.2% to the Gross Domestic Product (U.A.E. Country Report).

The implication on forestry is that support for this sector is only available as long as revenue from oil remains high. Therefore, the success of governments' endeavors to diversify their economies and decrease their reliance on oil is essential for the long-term viability of forestry in these countries.

The following Table 4-3 shows data on energy consumption in West Asia for the years 1980 and 2001. During that time, the per capita electricity consumption increased manifold in most countries, except for Afghanistan, where it actually decreased. Group 3 countries, with their desert climate and high reliance on 24-hour air conditioning systems, have by far the highest rate of electricity consumption in the region. As for traditional fuel consumption, Turkey, Yemen, and Afghanistan have the highest percentages.

Table 4-3 Traditional Fuel Consumption and Electricity Consumption in West Asia

Country	Traditional Fuel Consumption* (% of total Energy Requirements) for 2001	Electricity Consumption per Capita (kilowatt-hours)	
		1980	2001
Group 1			
Cyprus	1.3	1,692	4,679
Turkey	11.7	554	1,849
Iran	0.1	570	1,985
Group 2			
Lebanon	1	1,056	3,025
Jordan	2	366	1,507
Syria	0	433	1,528
Group 3			
Bahrain	0	4,784	10,350
Kuwait	0	6,849	15,309
Oman	-	847	5,119
Qatar	0	10,616	16,677
Saudi Arabia	-	1,969	6,018
United Arab Emirates	0	6,204	13,948
Others			
Afghanistan	58.8	60	25
Iraq	0.2	878	1,448
Yemen	3.2	-	164

*Traditional fuels include fuel wood, charcoal, bagasse (sugar cane waste), animal, vegetal and other wastes.
Source: United Nations Development Programme, Human Development Report for 2004

Apart from Iran, Group 1 countries are importers of oil. As a new member of the EU, Cyprus has developed an energy policy that places emphasis on research and development for the substitution of oil in energy production by using natural gas, renewable sources of energy, coal, and nuclear power (Cyprus Country Report). In Turkey, forest resources provide vital socio-economic contributions especially for local communities, which comprise around 7-8 million people living in over 20,000 forest villages. Almost all energy needs of such communities are provided as fuel wood at highly subsidized prices from state forests (Turkey Country Report).

Group 2 countries of Jordan and Lebanon are completely dependent on oil imports for energy. As Jordan imports 97% of its energy needs, the need for developing indigenous energy resource is set as a high priority on the national agenda of the government of Jordan (Jordan Natural Resources Authority Website). Lebanon has the world's highest prices for electricity and as a result, the poor rural communities are still dependent on fuel wood despite prohibition of its use. Due to the rising costs, the Lebanese government is currently in the process of converting its power generating plants from oil to natural gas, which will serve to reduce these costs of energy sources. As for Syria, its oil reserves are expected to last for 10 more years only, when Syria may become a net importer of oil. Exploration for oil and natural gas has become a top priority for the government (Energy Information Administration Website).

The highly volatile conditions in Iraq and Afghanistan have resulted in a low energy supply to the entire country and therefore the current policy is towards providing energy to as many people as possible. Despite having the world's third largest oil reserves, Iraq's oil infrastructure has been destroyed as a result of conflict. The government is currently

investing, through foreign aid, towards its rehabilitation in order to resume its oil export activities (Energy Information Administration Website) and will probably be able to do that in the near future.

In all of these countries (Group 1, 2, Afghanistan, Iraq, and Yemen), provision of an energy source to the entire population, specifically the rural one, will serve to reduce pressure on forests. In Iran, for example, fossil fuel was provided to the rural population in order to decrease their dependence on firewood. This has reportedly resulted in the prevention of forest and rangeland degradation in some parts of the country (Iran Country Report).

4.3 Institutional and Legal Framework

The institutional and legal framework in the forestry sector reflects the government's commitment towards the policies it has set up. Table 4-4 below gives a summary of the national and international initiatives made by each country in addressing forestry. The national initiatives include the presence of an authority specifically responsible for forestry (Forestry Authority column), the adoption of a National Forestation Program (NFP column) and existence of regulations solely aimed at protecting and managing forests and rangelands (Forestry Legislation column). As for international initiatives, they include active participation in the United Nations Forum on Forests (Active in UNFF column) and whether the country is party to the United Nations Conference to Combat Desertification (Party to UNCCD column) and the United Nations Convention on Biological Diversity (Party to UNCBD column).

Table 4-4 Summary of Forest Policy, Institutional and Legal Conditions in West Asia

Country	National Initiatives			International Initiatives		
	Forestry Authority	NFP	Forestry Legislation	Active in UNFF[1]	Party to UNCCD	Party to UNCBD
Group 1						
Cyprus	*	*	*	*	*	*
Turkey	*		*	*	*	*
Iran	*		*	*	*	*
Group 2						
Lebanon	*		*	*	*	*
Jordan	*				*	*
Syria	*		*		*	*
Group 3						
Bahrain					*	*
Kuwait					*	*
Oman	*					*
Qatar	*			*	*	*
Saudi Arabia	*		*	*	*	*
U.A.E.				*	*	*
Others						
Afghanistan	*		*		*	*
Iraq	*		*			
Yemen	*				*	*

[1]Active means that the country has a focal point in the forum and/or has submitted a national report. – Source: All country reports, UNFF website, UNCCD Website and UNCBD Website

4.3.1 Institutional Setup

With the exception of Kuwait and Bahrain, all countries in West Asia have a designated authority responsible for forestry. In the U.A.E., there is no forestry institution on the national level, but some Forestry Departments do exist under some Emirates. Table 4-5 gives an overview of these institutions in each country, in the forestry sector. In some countries, there is more than one government institution that is directly involved in forest activities.

Table 4-5 Institution Responsible for Forestry and Mandate

Country	Institution(s)	Mandate*	Organization / Capacity*
Group 1			
Cyprus	Department of Forests / Ministry of Agriculture, Natural Resources, and Environment	• Administering state forests • Implementing government policy regarding forests • Implementing plans for forest development • Cooperating with the fire brigade regarding fire-fighting • Collaboration with other government services and NGOs aiming at the implementation of the National Forestry Program and forest policy	Number of staff is 719: • 25 professional foresters & university graduates • 263 foresters & college graduates • 158 permanent forest workers, skilled and semi-skilled • 273 seasonal forest workers, skilled, semi-skilled, & unskilled (C6)
Turkey	Ministry of Environment and Forestry (MEF)	• Reforestation • Erosion control • Range improvement • Seedling production • Protected areas • National parks • Wildlife • Forest villages • Research works	• 4 units • 81 provincial directorates • 11 forest research institutes
	General Directorate for Forestry / Connected to one of the units of MEF	Protection, development and management of forests	• 3 units • 27 regional directorates • 217 forest district directorates • 1312 forest sub districts Most resources, both capital and human, are allocated to forest fire management.
Iran	Forest, Range and Watershed Management Organization (FRWO) / Ministry of Jihad Agriculture	• Forest protection • Implementation of forest plans	32 provincial offices with a few subunits each. Departments include Forest Management, Afforestation and Parks, Range Management, Sand Dune Fixation & Combating Desertification, Extension & Public Participation, Training, Protection, Legal Affairs, Land Survey, Planning and Programming and Institutional Affairs (In1)

Country	Institution(s)	Mandate*	Organization / Capacity*
Group 2			
Lebanon	Rural Development and Natural Resources Directorate / Ministry of Agriculture	• Undertake forestation projects • Protect, supervise and manage natural resources including forest fire prevention, management and control; illegal wood harvesting; forest pest management and control • Provide assistance whenever necessary	Number of staff: 175, with a plan to recruit 75 new forest guards (CRL).
	Ministry of Environment	Implementation of the National Reforestation Plan	-
Jordan	Forestry Directorate / Ministry of Agriculture	• Forest conservation and protection • Enforcement of Agriculture Law as it pertains to forest protection	36 field offices within the agricultural directorates. Divisions include: Afforestation and Nurseries, Forest Management, Land and Survey, and Biodiversity and Seeds (J1)
	Ministry of Environment	• Management of nature reserves	-
Syria	Directorate of Forestry and Afforestation / Ministry of Agriculture and Agrarian Affairs	• Managing, developing and protecting forests • Supervising forestation projects	• 560 forest rangers • 142 fire fighters and supervisory technicians • 69 forest office and monitoring tower • 15 fire fighting centres Departments include Investment, Biodiversity Protection, and Protected Area Management.
Group 3			
Oman	Department of Rangelands and Forests / Prime Ministry	Protect forest and rangeland resources	-
Qatar	Forestation and Rangeland Division of the Department of Agricultural Development / Ministry of Municipal Affairs and Agriculture	• Developing, protecting and establishing forest areas in the country • Maintaining new types of forest and grazing plants in cooperation with other agencies • Developing mangrove planting along the coasts • Expanding the establishment of nature reserves • Proposing legislations to develop forests	-
Saudi Arabia	Directorate of Rangelands and Forests / Ministry of Agriculture and Water	• Implementation of forestation program • Forest improvement • Sand dune stabilization • Protection of forests • Development and supervision of rangelands • Supervision of national parks	-

Country	Institution(s)	Mandate*	Organization / Capacity*
Others			
Afghanistan	Department of Forestry / Ministry of Agriculture	-	-
Iraq	General Corporation for Plantations and Forests	-	-
Yemen	General Corporation for Forests / Ministry of Agriculture and Irrigation	• Supervising the forestry sector • Drawing the policies and preparing the strategies and plans related to forestry management • Combating desertification • Implementing forestation campaigns	Number of staff: 120 Minimal financial resources allocated, less than 1% of the total Ministry of Agriculture budget.

* If available. Source: Country Reports and Presentations

Traditionally, the forestry sector in the region has been under the mandate of the national agency responsible for agriculture. Due to the growing concern for environmental conservation, a trend is emerging such that responsibility for protecting forests is shifting from a productive to an environmental perspective. This is due to the fact that interest forests and trees in most of the countries is changing from the products they might provide to the services they can offer. The trend is most obvious in Cyprus and Lebanon (Box 4-5).

Box 4-5 Institutional Responsibility for Forestry in Lebanon

In Lebanon, the authority responsible for forests has always been the Rural Development and Natural Resources Directorate at the Ministry of Agriculture. Its mandate is to:

- Undertake forestation projects
- Protect, supervise and manage natural resources including forest fire prevention, management and control, illegal wood harvesting, and forest pest management and control
- Provide assistance whenever necessary

Recently, the Ministry of Environment has been gaining more responsibilities regarding forestation activities, as well as protection of forest resources. For example, the National Reforestation Plan of Lebanon, project aiming at obtaining 20% forest cover (200,000 ha) in the country, is being implemented by the Ministry of Environment.

Source: Lebanon Country Report

In some cases however, such as Qatar, Iran, and Saudi Arabia, forestry is still completely under the jurisdiction of the agriculture authority of the country. In fact, even though Iran's Department of Environment manages protected areas, man-made parks and protected forests are managed by the Forest, Range and Watershed Management Organization at the Ministry of Jihad Agriculture (Iran Country Report). Nevertheless, the lack of a clear mandate for responsible institutions in managing forestry and rangeland resources has been cited as a major problem in most of the countries.

Regarding the administration and management of the forestry sector, Cyprus seems to have the most decentralized system. It is followed by Turkey, which is taking steps towards decentralization, while Iran is still in the early process. In both countries, decision-making in the forestry sector is still quite centralized. In Group 2 countries, major decisions are made at

the top level while implementation is done on the lower levels, though efforts are being made to limit this centralization, especially in Lebanon and Jordan. Group 3 countries are considered highly centralized with decisions being made on a strictly top-down level.

Apart from a few exceptions, mainly Group 1 countries of Cyprus, Iran, and Turkey, the capacity of the human resources responsible for forestry in the region is considered quite low, especially in the less developed countries of Yemen and Afghanistan (Box 4-6).

Box 4-6 Timber Mafias of Afghanistan, A Continuing Threat to the Country's Remaining Forests

Situated in the northeast along the border with Pakistan, Kunar Forest is one of the last remaining forests in Afghanistan. It is believed that half of this forest's viable stocks have been stripped by "timber mafias" and shipped to Pakistan for export to the Gulf and Europe. Before the fall of the Taliban, who somehow controlled the deforestation activities in Kunar – and profited from its products – had at least limited their exploitation.

The current interim authority is now powerless to stop the unrestrained logging as the perpetrators are protected by tribal and political warlords, who run much of rural Afghanistan. One of the efforts made by the new government in March 2005 was to form the "Green Division", an armed and trained contingent of 300 forest rangers with the goal of protecting Afghanistan's forests from timber smugglers. The rangers function under the Ministry of Interior, which expects to increase the division's manpower to 2,000 rangers by the end of the year. Skepticism surrounds this effectiveness of these efforts as some cite that the corruption of the police and high-ranking local officials will render them useless. Others have noted that the government has "neither the budget nor the equipment to support the division".

Source: Nasrat & Babak, 2005 and Wafa, 2002

Civil Society Participation

In spite of the large number of NGOs in many of the countries in the region, it seems that very few are truly viable or effective, especially considering that some of them rely on government or international funding. At best, the role of NGOs in the region is consultative in nature, such as in the countries of Group 1 and Group 2. Nevertheless, these organizations still perform several activities such as forestation, rural development projects, and awareness campaigns. In rare cases, they have managed to put pressure on the government to protect forests in the country (Box 4-7). It can be said that the capacity, as well as influence, of the civil society in these countries is slowly but steadily growing.

Box 4-7 The Case of the Scandinavian Forest in Jordan

In February 2004, the urgent need for a hospital for the people living in Ain Al Basha District and Baqa'a Refugee Camp near Amman was faced with massive protest. The construction of the hospital was planned in the Scandinavian forest, one of the country's few forests. The Jordan Environment Society, a leading environmental NGO in the country, actively opposed the location of this project. Supported by the local media that awarded the issue a lot of coverage, the project was halted and an alternative location was sought by both the Ministry of Environment, which had given its approval to the old site at first, and the Ministry of Health.

Source: Mango, 2004 and Dajani, 2004

In most Group 3 countries, the civil society does not really exist. All forestry-related activities are done through government initiatives.

NGOs in Afghanistan are quite active, but only as implementing agencies, since they receive funding from international sources. An organization such as Save the Environment-Afghanistan conducts a number of conservation programs that include community awareness and mobilization for environmental protection, reforestation, and forest monitoring (Azimi 2002). In Yemen, civil society organizations are weak or non-existent due to political, economic and social conditions (Yemen Country Report).

Private Sector Involvement

In a region with low forest cover, the economic return from forestry will always be limited and private investment in forestry is highly unlikely in the future. As a result, in countries of Groups 2 and 3, private sector involvement in forestry is practically non-existent. In Jordan, private forests are currently decreasing as their owners convert them to agricultural lands (Jordan Country Report). Similarly in Yemen, the private forestry sector is very weak and limited to irrigated agricultural activities (Yemen Country Report).

An exception to this phenomenon is Turkey, where trade in wood products is still considered a money-generating enterprise. Recent policy instruments in the country have been introduced to help increase the ratio of private forest ownership to 10%, further encouraging private business in the forestry sector (FAO Forestry Website).

4.3.2 Laws and Legislations

The most developed legal framework for forestry in the region is in Group 1 countries. Legislations in Cyprus date back to 1967, are constantly being updated, and currently aim to be in line with the EU and international best practices (Cyprus Country Report). Turkey's forestry laws have been in force since 1956 with a special Law on Development of Forest Villagers. The numerous changes made to these laws are considered by foresters to be the biggest problem for forestry in the country. Nevertheless, the government is currently preparing a reform pack of laws within the framework of EU adaptation and is hoping to achieve more stability in that sector (Turkey Country Report). Iran's forestry laws have also been in place for a long time, since 1968, and have been amended several times since (Iran Country Report). All of these countries have had a long history of forest protection through legislations that have been developing ever since their establishment.

Laws regulating forest management in Group 2 countries, especially in Jordan, focus mainly on prohibitions and limitations, ignoring planning, management, and development issues. Lebanon has more specific legislations tackling the forestry sector (Box 4-8).

Box 4-8 Lebanon – Forest-related Regulations

- Establishing a Natural Protected Area "Al Shouf Cedar" and aiming to preserve the wood, plant and animal wealth in the area
- Charcoal production is banned, except for controlled production under certain conditions (this amendment was made to cater for poor communities dependent on charcoal)
- Tax policy is applied to encourage production of pine nuts from Pinus pinea. The Ministry of Agriculture limited the price of a kilo ($20) for the local market. Here is also an importing tax on foreign products

Source: Lebanon Country Report

Even though policies in these countries constantly emphasize the importance of increased public participation and decentralization, this has not yet been reflected in the legislations in force.

Apart from Saudi Arabia, forestry legislation in Group 3 countries, which have the least forest cover in the region, is limited to general environmental protection laws (Bahrain, Kuwait, Qatar, and U.A.E.), grazing regulations (Kuwait and Oman) and designation of protected areas for mangroves (Bahrain and Qatar). As for Saudi Arabia, its Forest and Rangeland Regulations have been in effect since 1978 and deal with protection of vegetation, forests, and rangelands, as well as regulate their use. In addition to these laws, religious edicts also play an important role in protection of forest resources (Box 4-9).

Box 4-9 Saudi Arabia – Islam and Natural Resources Protection

The Saudi Arabia legal system subscribes to the Shari'ah which is both a state and religious law and provides a solid foundation for sustainable development based on the wise use of all natural resources. It stresses the importance of conserving renewal resources, and man's responsibility in using them to generate the greatest good over time. Although man has the right to use these resources, he is not permitted to abuse them. He is required to pass them on to future generations in an unimpaired condition.

Source: Saudi Arabia National Commission for Wildlife Conservation and Development Website

In the remaining countries, the legislative framework is either weak or not properly enforced, such as in Yemen, where the Forestry Law has been in draft form since 1990 and the environmental protection law in force only tackles forestry in general terms (Yemen Country Report). In Afghanistan and Iraq, forestry laws exist but considering the political situation in these countries, the ability of the authorities to enforce them is quite limited (UNEP Website, Wily 2003).

In general, enforcement of environmental regulations in the region is considered “far from satisfactory” in many countries due to the weak institutional capabilities (UNEP 2000). Another problem is the vague wording of the legislation which makes it difficult to interpret and implement on the ground.

Forest Land Tenure

Most of the land tenure systems in West Asia are the result of local customary laws as well as remnants of former colonial legacies. Small holdings ranging between 0.5 and 2 hectares characterize land ownership in many of the countries. Islamic inheritance law has contributed highly to this fragmentation, whereby land is divided between the children such that the son inherits twice the share of the daughter. In addition, government policies in these countries have failed to issue laws that limit the division of holdings below a minimum size (Rihan 2000).

Regarding forest ownership, forests Group 1 countries of Cyprus and Turkey belong to either the state, public institutions or private individuals. The unclear land tenure and fragmentation of private holdings in the country have raised problems regarding the management of private forests. In 1945, Turkey’s forests were nationalized but as soon as the country entered a multi-party political system, the forests were reinstituted to their former owners (Turkey Country Report). On the other hand, Iran’s forests have all been state-owned since 1962 (Iran Country Report).

In Group 2 countries of Jordan and Lebanon, forests are owned either by the public or private sector (Jordan Country Report, Saab 2004) while forests in Syria are state-owned with some user rights to the local population (FAO Forestry Website). Fragmentation of land is a major problem in all of these countries, especially in Jordan, where the law states that forest land cannot be purchased or exchanged.

As for most countries in Group 3, forest land is completely state-owned. In Qatar, the main type of forests, mangroves, are designated as nature reserves, even though the residents still have access to them (Qatar Presentation). Until 2002, the land tenure system in the U.A.E. was quite unique and land ownership was restricted to nationals while foreigners could only lease the land for 99 years. In May 2002, the law changed and a freehold tenure system was applied. This sparked a real estate boom in the country and it is expected to result in even further development activities (AmeInfo Website).

In Afghanistan, there is a lack of clear legal framework for land tenure and user rights. Along with collapse of government institutions, this has led to control of the resources by local landlords (Asian Development Bank 2003) and to insecurity in land tenure in the country (Box 4-10).

Box 4-10 Key Drivers of Tenure Insecurity in Afghanistan

The current situation of widespread insecurity of tenure appears to be driven by these main conditions:

- A history of rural production that builds on deeply inequitable relations within the community with regard to access to and rights over land and water
- Multiple and unresolved interest over the same land
- Failure to develop land ownership norms beyond the farm
- Continuing disorder that helps to sustain tenure insecurity in many rural areas

Source: Wily, 2003

Yemen's agrarian structure is characterized by small landholdings, such that 72% of the land holdings have an area of less than 2 hectares and the total number of holders actually own only 20% of the total arable area (Rihan 2000). In addition, Yemen's tenure system for forestry is still lacking such that private and public ownership are unclear, leading to various conflicts of interest, especially considering most of the forests are owned by individuals, families, communities, and tribes. There are also no government binding legislations that determine the beneficiary rights of the population. According to custom, the population resident near forest areas have the right to benefit from wood, grazing, collecting fruits, and hunting within these areas (Yemen Country Report).

It is important to note that, as mentioned in Section 4.2.2 on agricultural policies, the link between land ownership and use is weak in water-scarce areas due to the difficulty and high cost of cultivating the land. Therefore, the significance of land tenure is highly dependent on water availability in that land.

Grazing Control

Historically, nomads in West Asia had developed their own method of rangeland protection (Al-hema, Hamiyah, and Sann Systems). According to these systems, large areas of rangeland are designated as reserves to be used during stress periods. In the 1950s, land use laws that are

generally prohibitive and punitive were introduced in many countries in the region, establishing rangeland as public property. In some cases, such as Kuwait, all types of grazing in an area covering almost half of the country is banned according to an Act that was passed in 1989. Coupled with the advancement of agricultural technology, this has lead to the abandonment of these old traditions and customs of land protection (UNEP 2000). This is most apparent in the arid countries, such as the Group 3 countries of Saudi Arabia, Oman and Qatar, as well as Group 2 countries of Jordan and Lebanon (Respective Country Reports).

In Iran on the other hand, pastoralists can still manage rangelands according to customary rights, but the government provides compensation for animal holders so that they do not use the forests for grazing (Iran Country Report). As for the case of Cyprus, where goat grazing has been a major threat to the forests there, the law completely forbids the importation of goats and encourages shepherds to increase sheep numbers at the expense of goats (Cyprus Country Report). These attempts have not been very successful as the number of goats in the country is still increasing (see Figure 3-4 (see Figure 3-4countries in West Asia, especially during the draught season, when the animals are left free to devour any kind of vegetation accessible. With the weak capacity to enforce legislation, this problem is quite difficult to control. Encouraging the establishment of closed farms to replace the phenomenon of roaming herds may be a possible trend to overcome this.

5 SUMMARY AND CONCLUSIONS

Most of the countries in West Asia vary greatly in their characteristics, making general statements about the entire region very difficult. Nevertheless, most countries suffer from scarce water resources, low forest cover, and the threat of desertification. The region is also characterized by a high but decreasing population growth rate with a high percentage of young population.

The economy of the countries of West Asia is generally either oil-based or service-based with a tendency towards economic liberalization. The region is dominated by political instabilities with a high level of external influence. Most of the countries' governing systems are centralized such that civil society activities are only consultative in nature and dependent on external funding, while public participation in decision-making is lacking.

Regarding land use, urbanization is occurring in almost all countries while there is not clear trend for agricultural land, rangelands, and forest land in the region. As for livestock, their numbers are increasing in most countries, increasing pressure on the already limited natural resources.

Encroachment of urban areas on forest land has been noted in some countries, along with clearing of forests for agricultural purposes. On the other hand, abandonment of agricultural activities has served to increase private forests in rare instances. In the Gulf region, both the agriculture and forestry sectors are supported by the government such that areas for both activities are increasing. This means that competition for land between the two is minimal if existent.

The lack of land use planning is exacerbated by fragmentation of land parcels in many countries. Conflict over land due to weak enforcement of policies and legislation was another identified trend. All this is making rehabilitation and development of forest land extremely difficult.

The forest policy in the region emphasizes protection and environmental services, with a decreased interest in wood products in countries where forestry contributes to the national economy. A trend for forest protection observed in most countries is through the establishment of protected areas and afforestation activities.

Support for the forestry sector is made either through government funding, most notably in Gulf countries utilizing oil revenues, raising the issue of sustainability of this support. Countries with a stable and diverse economy also provide significant support to the forestry sector. Other countries depend on international funding and are therefore restricted by donor priorities and availability of financial resources.

Environmental policies in the region relate to biodiversity conservation, water resource management, and combating desertification and are either dependent on external funding or funding from the oil sector. As for the agricultural sector, it is subsidized by governments, especially in water-scarce countries. Rural development activities in the region aim to limit migration to urban areas and improve living conditions in rural areas but have not yet shown clear benefits for the forestry sector. As for the energy sector, there are two relevant factors. One is fossil fuel as a source of government revenue, mostly in the Gulf countries, and the

support this revenue provides to the forestry sector. The second is provision of energy sources to the population in order to reduce pressure on forests, mainly in the oil importing countries. Apart from a few countries, the region is characterized by weak institutions and unclear delineation of responsibilities with decisions being made at the top level. An emerging trend in some countries is the transfer of some forestry responsibilities from agricultural to environmental institutions. Due to the limited economic return from forestry, there is little private sector involvement in forestry.

As for the forestry legislations, there are mainly three types. One is forestry laws that have been developing over a long period and are considered relatively advanced. Another is more recent forestry laws, which are prohibitive, punitive and non-participatory in nature, leading to marginalization of the public and decreasing their involvement in protection measures. In the third case, forestry laws are completely non-existent, with only general environment protection regulations. In general, enforcement of legislations is weak due to limited institutional capability and vague wording of legislation.

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