



UNEP/MAP-METAP SMAP III Project
**Promoting awareness and enabling a policy framework
for environment and development integration in the Mediterranean
with focus on Integrated Coastal Zone Management**

Syria's Coastal Zone and its Desired Integrated Management

Proposed Vision and Policy



*This project has been financially supported
by the European Union*

SMAP III/2009/ICZM-NPR/ENG
Priority Actions Programme
Regional Activity Centre
Split, March 2009

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Definitions

Legal demarcations in the coastal zones

The coastal zones consist of a land part and a marine part. The marine part is composed of several marine juridical zones:

- The territorial sea within the limit of 12 nautical miles according to UN Convention for the Marine Law which provides that territorial sea can extend to a maximum distance of 12 nautical miles from the baseline used to measure the territorial sea;
- The Exclusive Economic Zone (EEZ) extends from the territorial sea, in principle to a maximum distance of 200 nautical miles from the baseline. On the basis of the UN Convention, a country that creates an EEZ is responsible for managing its natural resources within its zone.
- The Continental Shelf of a coastal state consists of the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to the outer limit of the continental border, or to a distance of 200 nautical miles from the baseline used to measure the width of the territorial sea when the outer limit of the continental border does not extend to that distance.
- There are no specific legal definitions that can be applied to the landward side of the seashore other than the boundaries of local or regional administrations with a coastal frontage.

Coastal zone

- There is no common or unique definition of what constitutes a 'coastal zone', their dynamic nature and complexity means that they do not lend themselves to a definition by strict spatial boundaries. Coastal zone management will inevitably concentrate on the shoreline and the land and marine areas immediately adjacent to it, but the boundaries of the coastal zone are considered to extend as far inland and as far seaward as necessary to achieve the environmental, social and economic objectives of this Vision and Policy. Typically therefore countries have not specified specific spatial boundaries in relation to the coastal zone, preferring instead a flexible and pragmatic approach according to the issue.

Integrated coastal zone management

- Integrated Coastal Zone Management (ICZM) is a dynamic, multi-disciplinary and iterative process to promote the sustainable management and use of coastal zones, taking into account the fragility of coastal ecosystems and landscapes, the diversity of activities and uses, their interactions, the maritime orientation of certain activities and uses, and their impact on both the marine and land parts. It covers the full cycle of information collection, planning (in its broadest sense), decision-making, management and monitoring of implementation. ICZM uses the participation and co-operation of all stakeholders to assess the desired goals in the coastal area, and to take actions towards meeting these objectives.

ICZM seeks, over the long-term, to balance environmental, economic, social, cultural and recreational objectives, all within the limits set by natural dynamics.

- ICZM is a generic method that embodies the general principles, and that promotes the sustainable management of the coastal zones. It is a means to accept differences of objectives and opinions, and of tolerating uncertainties about the ongoing and future natural processes while still proceeding to address the issues under debate through finding broadly acceptable solutions.
- “Integrated”, in ICZM, refers to the integration of objectives and instruments needed to meet these objectives. It means integration of all relevant policy areas, sectors, and levels of administrations. It means also, integration of the terrestrial and marine components in both time and space.
- ICZM’s unique characteristic as an administrative mechanism is its longitudinal emphasis along the shoreline. ICZM will concentrate primarily on the coastal strip, but can be extended at its maximum to the administrative borders of the coastal governorates from terrestrial side, and to the limit of territorial marine waters.
- ICZM seeks to guarantee comprehensiveness in dealing with the coast. By focussing on the coastal eco-system, ICZM surmounts obstacles and administrative conflicts resulting from transversal administrative divisions along the shoreline, and overcoming the longitudinal demarcation between terrestrial and marine areas, thereby protecting resources and coastal landscape for the benefits of present and future generations.

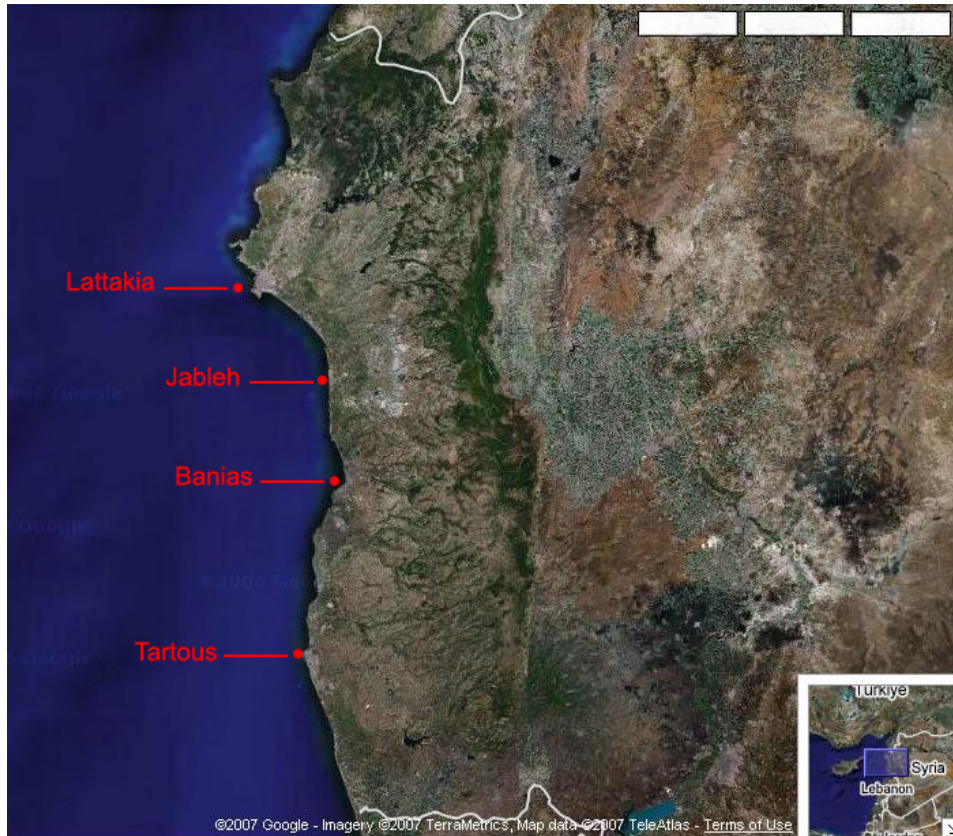
Introduction

1. The significance of Syria's coastal zone

- 1.1. The coastal zone of Syria is of critical importance to the country and a strategic access to the world. This importance includes national security, leisure use by national, Arab and foreign tourists, an increasing percentage of economic activities, and as a main passageway for the Syrian trade. The coastal zone therefore provides important economic, transport, residential and recreational functions, all of which depend on its physical characteristics; appealing landscape, cultural heritage, natural resources, and rich marine and terrestrial biodiversity. This resource base is thus the foundation for the well-being and economic viability of present and future generations of its residents.
- 1.2. Most Syrians, even including those in landlocked regions, rely on the resources of the coast either as a source of food and raw materials, or as a vital link for transport and trade either for goods or oil trade, for export and import, as well as the passageway for some neighbouring countries who have no direct access to the Mediterranean.
- 1.3. The coastal zone in Syria has to be considered as one of the scarce natural resources of the country, providing a narrow window to the sea for such a relatively large country. With only 183 kilometres of coast, Syria has one of the lowest ratios of coast to land area and coast to population of any Mediterranean state. However, this statistic disguises the importance of the coast to Syria in terms of the economy, recreation and tourism, and as a part of the national heritage.
- 1.4. The coastal region, consisting of the 2 coastal governorates Latakia and Tartous, represents less than 2.5% of state area, but is home to 11% of the Syrians; the population density is the highest among all governorates except of Damascus. According to the State Planning Commission the population density reached in the governorate of Latakia 405 and Tartous 370 inhabitants/km², while in the narrow coastal plain the population density is almost 20 times greater than the national average, and 6 times greater than the rest of the coastal region, the hinterland. This population density, combined with its strategic and economic importance, places disproportionate pressures on the coastal zone.
- 1.5. The current population in the 2 coastal administrative regions of Syria, Latakia and Tartous Governorates, is about 2 million, more than 4 times that of half a century ago. This rapid population growth, in an area mostly shaped by steep slopes, mountains and limited arable land, has led to high rates of rural-to-urban migration and extensive urban sprawl over the coastal strip.
- 1.6. In addition, powerful economic pressures exist in the coastal region, and particularly in the narrow coastal zone. Amongst these economic pressures are Syria's two commercial seaports, its two oil terminals, its largest oil refinery, power plant and cement factory, the third largest airport, the first region for citrus, greenhouse vegetables and tobacco farming and processing, and the second region for olive farming and olive oil production, the heaviest concentration of steel bars industry and beverages production, and, naturally, the

major source of fresh marine food. These examples clearly underscore how central is the coastal zone to the economy of the country.

- 1.7. The reason for the high concentration of economic activities in the narrow coastal strip is not difficult to determine since the eastern hinterland is a mountainous and mostly rocky region unsuitable for intense human settlement and utilization. Thus, its residents and accompanying activities have tended to move westwards to the coastal plain.
- 1.8. In the latter part of the last century the coast witnessed the development of large maritime facilities including; Baniyas oil terminal, the commercial seaport of Lattakia and the commercial seaport and oil terminal of Tartous. These provide vital economic outlets to the Mediterranean. The coastal zone is naturally the base of shipping and maritime services and the resulting direct and indirect employment source for workers in marine services.
- 1.9. With its surplus of water resources, Syria's coastal zone is expected in the future to supply other regions in the country with water so as to assist in bridging the gap between their limited water resources and the increasing water demand.
- 1.10. The climate in Syria's coastal zone is typically Mediterranean with dry summers, and wet, windy winters and springs. The shoreline consists of sandy bays, alternating with rocky headlands and low cliffs. The coastal mountain chain separate Syria's interior from the Mediterranean coast with slopes originally covered in forests of oak and pine. On the coastal slopes of the part of the mountains north of Lattakia are some of the best natural forests of the country.
- 1.11. South of Lattakia, the coastal strip widen into fertile plains (plain of Jableh), to the east of the third major coastal city, Jableh. The strip then narrows again and is interrupted by spurs of the mountains immediately to the east in the sector between Baniyas, the fourth coastal city, and Tartous, the second major coastal city. South of the Tartous. The narrow coastal strip then widens into the fertile Sahl 'Akkar (plain of 'Akkar), which continues south across the Lebanon border.
- 1.12. The combination of the attractive landscape, the favourable climate and transport infrastructure has led to the development of a number of summer resorts primarily used by Syria's inland urban population and other Arab visitors. In addition, archaeological sites attract European tourist groups.
- 1.13. Syria's coast hosts many archaeological sites and ancient ruins. Some are still poorly excavated, documented and protected. Amongst the most important sites are the ruins and old cities of Lattakia, Jableh and Tartous, Ugarit north of Lattakia, El-Marquab castle near Baniyas, and Amrit south of Tartous.
- 1.14. Arwad, the sole inhabited island in Syria just 1 NM off Tartous, was the base of a great sea trading kingdom in the Canaanite era. Many of Syrian's coastal towns and cities have a culture and way of life stretching back over centuries.



2. The challenges in managing Syria's coastal zone

- 2.1. How Syria maximizes the benefit from its narrow window to the Mediterranean whilst protecting the coastal environment and natural scene, is a great national challenge.
- 2.2. The dynamics of natural coastal processes, including weather systems, sediment transport mechanisms, as well as the hydrological links between the catchments and the coast, are factors that influence the ability of the coast to sustain human activities. Sea level rise, whether as a consequence of climate change or erosion, will present increased threats and costs to sustaining infrastructure and human settlement. Human actions have exacerbated these problems through the inappropriate location of developments and the overexploitation of coastal resources. Human pressures threaten habitats and natural resources of the coastal zone, and with them, the ability of the coastal zone to perform many of its essential functions.
- 2.3. Increasing population, both resident and transient, is leading to increased conflict between the competing uses in the coastal zone. Low impact uses are frequently being replaced by intensive uses that are more profitable in the short-term but undermine the long-term potential of the coast by reducing its resiliency.
- 2.4. Unfortunately, there is no sign that inappropriate uses of the coastal zone are becoming less frequent. In fact, with increasing population, visitors and economic activities, the pressures are increasing.

Stocktaking of Syria's coastal resources

3. Definition of the Syrian Coastal Zone

- 3.1. Syria's coastal zone is not identified with a specific legal instrument or regulation, but taking into consideration that the Syrian Arab Republic is a signatory to the recent ICZM Protocol to Barcelona Convention, it is proposed that the coastal zone should be defined to extend over the whole lateral of the coastline and landwards by a minimum of 1 kilometre. The zone should be extended further where coastal urban areas and other significant coastal natural features and relevant activities extending inland beyond this distance. The seaward extent of the coastal zone should be less prescriptive, reflecting the naturally dynamic nature of this environment, but also in relation to the nature and extent of marine activities within national territorial waters.
- 3.2. This coastal zone should be managed in a complimentary manner to the existing local, sectoral and maritime legislative and administrative tools. This doesn't mean the discontinuation of existing administration tools, but rather supplementing and integrating them, with coastal zone management tools.
- 3.3. In accordance with the ICZM Protocol to Barcelona Convention, the maritime setback shall be established within which future construction should not be allowed for a distance of not less than 100 meters from the highest winter waterline, taking into account the areas likely to be directly and negatively affected by climate change and natural risks. This setback may be properly adapted for some projects of public interest that could not be erected behind, or for some coastal sectors having particular geographical or other local constraints, especially related to population density or social needs.

4. Major environmental problems in Syria's coastal zone

- 4.1. A study on the cost of environmental degradation in Syria estimated the yearly loss of coastal resources at 600 million Syrian Pounds, equivalent to 0.1% of national GDP, attributed mainly to coastal pollution from port, municipal and industrial waste and sewage. These losses result from domestic and international tourism revenue losses and ecosystem losses as a result of coastal water pollution affects fisheries and due to change in species.
- 4.2. Although the coastal zone forms about 0.2% only of whole country area, it shares about 2% of whole country's environmental degradation losses. However, this share represents only the effects directly related to the seacoast and seawater. These losses would be much higher if the coastal zone quota is discounted from the other categories (land, air, water degradation, etc.) and added to the coastal zone environmental degradation category.
- 4.3. In Syria, the coastal zone is facing serious problems because of crowded uses and conflicting usage claims which are often damaging the environment and scenery.

Environmental Category	US\$/year (millions)	Syr.Pds./year (billions)	Percentage of GDP
Land	230	12	1.3%
Air	218	11	1.2%
Water	152	8	0.8%
Waste	12	0.6	0.1%
Coastal Zone	12	0.6	0.1%
Sub-total	624	32	3.5%
Global Environment	228	12	1.2%
Total	852	44	4.7%

Cost of environmental degradation in Syria (METAP, 2001)

- 4.4. The major identified environmental problems in the coastal zone are the physical alteration of coastline, declining of physical space, habitat destruction, coastal erosion, degradation of natural and cultural heritage, pollution with solid wastes and coastal litter, soil contamination, water pollution including coastal waters, surface waters, and groundwater either from maritime or land-based sources including landfills, discharge of urban and industrial wastewater, rivers and wadis borne pollution derived from agricultural runoff, as well as saltwater intrusion into river mouths and groundwater due to overexploitation of fresh water.
- 4.5. The combination of the adverse effects of the aforementioned problems is causing, by turn, serious problems to the marine ecological resources and biodiversity. This is added to overexploitation of these resources through unsustainable fishing rates and illegal or damaging fishing methods.
- 4.6. A brief description of the major coastal zone environmental problems is presented below:

Physical alteration of the coastline

- 4.7. In view of the relatively short seafront of Syria, the coastline natural landscape and ecological features and habitats are under concentrated pressure from:
- increasing urban and economic growth, including cities and tourism projects
 - physical alteration by levelling, dredging, dumping of earth and rock, concretization and construction works
 - illegal mining of sand and sandstone
- 4.8. So far, almost one third of the whole length of Syria's coastline has been altered to man-made constructions such as restaurants, hotels and cabanas, commercial ports, oil terminals, industrial facilities (e.g. Baniyas power plant, located just on the coastline), extended cornices at the seafronts of the 4 coastal cities (Lattakia, Jableh, Baniyas and Tartous) and other uses. The sea cornice of Baniyas for example extends just above the coastline for more than 6 km

though a city which is the smallest among the 4 mentioned cities with a population of not more than 50,000.

- 4.9. In addition, the coastline is threatened in some parts by coastal erosion resulting from development projects and engineering works. Such works have accelerated erosion of the adjacent shoreline because they did not adequately account for coastal dynamics and processes. Sea level rise resulting from climate change may aggravate this erosion in future.

Degradation of cultural heritage

- 4.10. Syria's coastal zone hosts many archaeological sites and ancient ruins, some of which are still poorly excavated, documented and protected.
- 4.11. Amongst the most important sites are the ruins and old cities of Lattakia, Jableh and Tartous, Ciano near to Jableh, El-Marquab castle near to Banias. Arwad, the sole inhabited sea island in Syria just 1 NM off Tartous, was the base of a great sea trading kingdom in the Canaanite era, ruling large parts of coastal and inland Syria.
- 4.12. Two other Canaanite sites adjacent to seacoast are of historic cultural importance; Ras Shamra (Ugarit) to the north of Lattakia, where the earliest alphabetic writing was found; and Amrit to the south of Tartous, a great ancient capital where the oldest sport stadium (c1500 BC) was discovered with a capacity for 10,000 spectators.
- 4.13. Urban expansion and sprawl, economic and infrastructure projects, and superficial "modernization" processes are threatening the long-term preservation of this rich coastal cultural heritage.

Degradation of natural heritage

- 4.14. The famous white cliffs at Burjislam (20 Km north of Lattakia), which are considered as one of the most important natural assets in Syria's coastal zone, are fortunately protected in good condition. However, the dynamic expansion and development of urban, tourism and transport infrastructures during the last few decades increasingly threatens natural heritage sites in the coastal zone including forests and beaches. These threats are incurred either directly or indirectly through anthropogenic pressures resulting in fires, forest clearance and infringement upon natural sites, or through legal or illegal change of land use and landscape exercised sometimes by municipalities and governmental bodies

Pollution by solid wastes and coastal litter

- 4.15. There are increasing and serious problems with solid waste due to the lack of modern and effective integrated solid waste management, either at governorate or even municipal levels, and the chronic obstinate problem of allocating areas for the safe disposal of municipal garbage in the crowded coastal zone. This problem takes various forms such as:
- authorized, but poorly protected, wind-exposed dumping sites;
 - unauthorized dumps;
 - sites where construction debris are randomly dumped and engineering projects residues are left;

- garbage, plastic bags and other solid wastes scattered over cultivated land, beaches, wadis or road sides;
- solid marine wastes and accumulated coastal litter, either of marine or terrestrial sources transported by wind or watercourses, or left by summer vacationers and coastal fishermen.

4.16. In a workshop held in 2004 for prioritizing the environmental problems of the Syrian coastal region, Al-Bassa dumpsite was ranked the worst case amongst 30 pollution sources of different types. This dumpsite, located 12 km southeast of Lattakia consists of over 100 hectares area directly next to coast at a site having tourism potential, presents an example on the acuteness of the solid wastes problem. It receives from Lattakia and other cities and towns in the region of 850 t/day of garbage, containing hazardous industrial, agrarian and medical wastes, emitting bad smells and toxic burning smoke, while attracting insects and rodents. Scattered plastic bags and refuse spoils the natural scenery of the surrounding area, beach and coastal waters. Around 80 t/day of chemically and bacterially polluted leachate either percolates directly to the sea or to soil and groundwater.

Water pollution

- 4.17. Different cases and levels of water pollution are frequently reported in the coastal zone, including pollution of coastal waters, surface waters (rivers, estuaries, runoff etc.) and groundwater. Also there are cases of saltwater intrusion into river mouths and groundwater due to overexploitation of fresh water.
- 4.18. Water pollution is attributed mainly to the lack of adequate sewage networks with treatment facilities. So far there are no treatment plants for urban wastewater in the coastal region, neither for coastal cities and other coastal residential agglomerations, discharging directly or semi-directly to the sea (including the large cities Lattakia, Jableh, Banias and Tartous, and Arwad island), nor for coastal catchment's area hinterland, where sewerage networks of cities, towns and villages discharges into rivers, dam-lakes or wadis. Pollutant excesses are transported by watercourses and seasonal storms to end finally at the lower coastal plain.
- 4.19. Urban wastewater, particularly of the main cities, combines with untreated industrial wastewater containing harmful or bio-accumulating pollutants.
- 4.20. In addition to urban wastewater, other sources contribute in coastal zone's water pollution:
- untreated (or insufficiently treated) industrial wastewaters and polluted runoff directly discharged to the sea (e.g. Banias refinery and power plant, oil terminal's tank farms at Banias and Tartous, commercial ports at Lattakia and Tartous etc.).
 - excess agricultural fertilizers and pesticides originated either from the coastal zone itself (particularly the widespread greenhouse farming) or carried from the hinterland by floodwater and rivers, ship-generated wastes, incidental oil spills at oil terminals from tankers, loading facilities and piping.
 - heavy organic loads originating from hundreds of small and middle-sized olive oil mills scattered over the whole coastal region's area.

- transboundary pollution from far coasts and the high sea.
- 4.21. The Syrian coast 2003 "Diagnostic Analyses" observed the following water pollution impacts:
- low impact on groundwater quality;
 - pollution of river basins and estuaries, particularly in low-flow season;
 - high topical impact on aesthetics and air quality near outlets, limiting shoreline validity for tourism and recreational uses;
 - moderate to high eutrophication near outlets, mostly in summer;
 - high impact on shoreline biodiversity in affected sectors;
 - moderate impact on sea utilization, including coastal waters for swimming and recreation;
 - changing of seawater and sediments quality in the marine ecosystem, resulting in moderate to severe destruction of marine biodiversity and moderate to high cumulative impacts on marine life, bio-products and bio-productivity.

Effects on marine ecological resources and biodiversity

- 4.22. There are two categories of effects on marine environment:
- effects resulted from the aforementioned environmental issues;
 - effects resulted from overexploitation of marine ecological resources.
- 4.23. The first category effects present some useful examples of the close correlations between terrestrial and seawater ecosystems, together with anthropogenic pressure on the coastal zone, since:
- Physical alteration of coastline, results in heavy damages to coastal and shallow water habitats and nursery places of species, including cavernous rocks, sand beaches, dunes, lagoons, etc.
 - Forest clearance, native vegetation cover removal and land tilling, and the resulting dramatic increase of soil's water-erosion rates (by 50-100 times, as reported for some ex-forest tilled heights near to Lattakia), resulted in the loss of terrestrial natural resources on the one hand, and acute damage to marine natural resources (such as sea grass beds and fishes) on the other, through huge loads of suspended soils reaching seawater carried by surface runoff and river floods after heavy rains.
 - Pollution with solid wastes and coastal litter, resulting in damage to coastal and marine habitats, and the death of some species such as sea turtles swallowing floating plastic bags. This latter contributed in the yearly invasion of jelly fish into Syrian coastal waters during high summer season, in absence of their bio-enemy the turtles, threatening swimmers through acute human dermal allergy.
 - Water pollution by sewerage, industrial and agrarian discharges, oil spills and other sources, resulted in changing of seawater and sediments quality in the marine ecosystem.
 - Altogether, these factors have contributed in complicated ecological processes leading to marine biodiversity disequilibria and serious adverse impacts on the bio-productivity of the marine living resources.

- 4.24. The second category effects, related to overexploitation of marine ecological resources, are more correlated to socio-economic processes such as unemployment, market pressures and the underdevelopment of administrative and technical infrastructure.
- 4.25. In the absence of effectively protected marine or coastal protected areas, and with low enforcement of the legislative and regulatory framework for fishing and biodiversity, heavy fishing is practiced by small boats within the limited area of Syria's continental shelf (only 900 km² area), width of which in some places is less than 1 km. This accounts for an estimated 90% of the 4,000 tonnes of Syria's annual fisheries production, while only 10% is from the high sea.
- 4.26. Syria's continental shelf is naturally characterized by a low bio-productivity (benthos 20 g/m² at 45 m depth and 0.6 g/m² at 200 m depth) which is attributed to:
- oligotrophic and high salinity (40 ppt) coastal water
 - relatively low freshwater inputs, due, partially, to dams built on coastal rivers (resulting as well in higher pollutant concentrations in river discharges)
 - slow sea current (13-17 cm/sec.) and low tidal level (about 40 cm in most cases) slowing pollutants' dispersion rate, increasing their impact on the marine life in the continental shelf area
 - the shoreline is relatively poor in the number of gulfs, bays, estuaries and other areas suitable for species nursing and reproduction.
- 4.27. According to a number of studies, current fishing activities are depleting un-renewable stock. Such unsustainable fishing rates, with some reported illegal or damaging fishing methods, added to the degradation and increasing pollution of marine and coastal environment, seriously threatening the source of living for thousands of fishermen and puts into question the very future of fishery in the coastal zone of Syria.

Socio-economic aspects

- 4.28. Physical and biological problems in the coastal zone have led also to magnified socio-economic and cultural problems, such as:
- unemployment and social instability resulting from the decline of traditional resources or environmentally-compatible sectors such as small scale coastal fisheries; in some coastal sectors professional fishing is experiencing difficulties in surviving
 - competition between users for resources; the low availability of sites for some environmental-friendly uses, as a result of allocation of space for other damaging uses, constitutes a significant limiting factor on the expansion of such activities
 - loss of property and development options
 - destruction of cultural heritage and dilution of the social fabric following uncontrolled development (especially of tourism)
 - lost opportunities for durable employment, as resources are degraded
 - marginalization and emigration
- 4.29. The increasing socio-cultural changes and the decline of traditional and ecologically compatible activities and small industries, is leading to unemployment, emigration, and

social instability. Either through dwindling stocks or technological changes, many traditional sources of income, like farming, handicrafts and coastal fishing, have become unprofitable, causing social and economic problems.

- 4.30. Currently the coastal region has only a modest share of international tourists visiting Syria. In the year 2006 the two coastal governorates (Lattakia and Tartous) hosted only 3.5% of the total tourist nights spent by international tourists (non Arabs) as recorded in the hotels. This indicates in particular that the Syrian coast doesn't attract "sun and beach" European tourists such as in other Mediterranean coasts including some neighbouring countries (e.g. Turkey and Cyprus). If the coast is to maintain its present market and compete with other Mediterranean destinations in the long term, the environmental dimension is essential taking into consideration the increasing environmental awareness and demand not only in Europe but also in Syria and other Arab countries.
- 4.31. Given the coast's critical value and its potential, these problems must be addressed. And, as many of the problems of the coastal zone, the response must include some action at both national level and local level.

5. Root causes of coastal zone environmental degradation

- 5.1. Analysis shows that the root causes of this environmental degradation in the coastal zone are mainly a result of a number of socio-economic factors and managerial deficiencies:

Socio-economic factors

Population growth, urbanization and unemployment

- 5.2. According to official statistics, the current population in the two coastal governorates of about 2 million, more than 4 times what it was half-century ago. This rapid population growth, in a mountainous area with limited arable land, led to high rates of rural-to-urban migration. This urbanization process has resulted in urban sprawl over the coastal strip and near-shore illegal construction.
- 5.3. With population growth continuing, against a background of decreasing job opportunities, the new generations in the coastal cities are suffering of increasing unemployment.

Development of maritime economy

- 5.4. After centuries of stagnation and isolation, the short seafront of Syria has witnessed during the 3rd quarter of the last century the establishment of 4 large and modern maritime facilities. These are successively; Baniyas oil terminal, the modern commercial seaport of Lattakia, the commercial seaport of Tartous and Tartous oil terminal.
- 5.5. This has caused direct environmental consequences (such as coastline alteration and ship/facility generated marine and coastline pollution, hydrocarbons leakage and spills from the large tank farms of the two oil terminals ... etc.). Further indirect consequences result

from the socio-economic changes brought about by those facilities; these include further coastal urbanization, the intensification of land transport and other service-sector or associated projects.

Tourism growth

- 5.6. With improvement of land transport and services infrastructure, the coastal region in general and its coastal cities and seafront in particular, became an attractive destination for beach and mountain summer recreation, either for inland Syrians, Syrian expatriates tourists or for car summer-vacationers from other Arab countries. In addition to European tourist groups most interested in visiting the archaeological sites.
- 5.7. In terms of spent tourist nights, national statistics shows that the governorate of Lattakia, the northern governorate of the two coastal ones in Syria, representing only 1.2% of the whole national land area, is a major tourism and summering destination in the country with a share of 10.2% of the total tourist nights reported in the year 2006.
- 5.8. Beach tourist compounds already occupy long stretches of coastline south and north of Tartous, north of Lattakia, and at Ras El-Bassit far north of the coast, causing increasing direct and indirect pressures on the marine and coastal environment. Mountain tourism is contributing in forest clearance for building and services.

Industrialization

- 5.9. Although it is hard to classify the coastal region of Syria as an industrialized region – even at national scale, some of the existing industries are of high concern due to their relatively large-scale in the narrow coastal plain; Baniyas oil refinery (6 million t/year, the largest in Syria), Tartous cement factory (nearly 2 million t/year, the largest in Syria), Baniyas power plant (715 MW) directly on the coastline, plus iron and steel milling and rolling factories ... etc.
- 5.10. These industries, in addition to large oil tank farms and Lattakia airport, have occupied large areas of fertile lands (loss of limited land resources), emitting liquid and air pollutants in densely populated and cultivated places (pollution effects on human and plant health), adjacent to seacoast and near to important freshwater resources and sensitive eco-systems (risk of pollution incidents).

Agricultural intensification

- 5.11. Due to the coastal plain's favourable climate (relatively warm in winter), and to small and fragmented agricultural land holdings (the average holding area in the 2 coastal governorates is the smallest among all of country's governorates), the narrow coastal plain, particularly at south and north of Baniyas, became the most suitable area for greenhouse farming and the greater supplier to whole Syria with winter vegetables. The number of greenhouse units exceeded 70,000 with total area of more than 3,000 hectares.
- 5.12. This type of farming is characterized by a high degree of chemicalisation (intensive and unregulated use of pesticides and fertilizers) bringing with it several health and

environmental dangers including human health effects, to both producers and consumers, along with the pollution of soil, groundwater, watercourses, and seawater as the end receiving milieu for all surplus pollutants in the coastal catchment's basin.

Managerial deficiencies

Lack of spatial and cross-sectoral planning

- 5.13. This is a major shortage not only in the coastal region but countrywide. In principal, it is hard to say there is, so far, effective spatial planning, particularly beyond the administrative borders of localities. Such planning is at best an ameliorative measure on the unplanned status quo. This matter is closely related to the weakness in coordination between potentially conflicting sectors (housing, tourism, industry, transportation etc.).
- 5.14. At coastal zone level, these shortages are exacerbated by the absence of an integrated coastal zone concept, whether in the legal framework, or at planning and administrative functional levels.

Administrative malfunction – the lack of administrative coordination on integration

- 5.15. The environmental condition of the coast is a function not only of existing pressures, but also of the quality of coastal management. The following central government agencies are involved in different aspects of coastal zone management:
- Ministry of State for Environmental Affairs;
 - Ministry of Local Administration;
 - Ministry of Transport;
 - Ministry of Housing and Construction;
 - Ministry of Tourism;
 - Ministry of Agriculture and Agrarian Reform;
 - Ministry of Irrigation;
 - Ministry of Oil and Mineral Resources;
 - Ministry of Industry;
 - Ministry of Electricity; and
 - State Planning Commission.
- 5.16. In addition, city, town or village councils practice competencies within the defined administrative borders of their administration units, including seafronts for coastal units.
- 5.17. Jurisdiction on the coastline, internal and territorial sea is exercised by the General Directorate of Ports (Ministry of Transport).
- 5.18. Conflict of interests and overlapping competencies often hinder the proper management of the coastal zone. In principal, the role of horizontal harmonization of functions among all these central and local bodies at governorate level is the duty of the Governor, Governorate Council and its Executive Bureau, but in many cases the influence of central bodies is overwhelming.

- 5.19. Managerial deficiencies include unsustainable and ungoverned spatial development, weakness of cross-sectoral planning, multiplicity of legislative and administrative tools, conflict of interests and overlapped competencies.
- 5.20. It should be noted that unplanned development causes, in the long term, wasted investments, lost opportunities for durable employment, environmental and social degradation. Uncontrolled development – whether from industry, oil, power, infrastructure or any other sector – overburdens the natural carrying capacity of the coastal zone, through polluting and degrading natural resources, destroying landscapes and reducing the quality of life for residents. This manner of development destroys habitats as a result of poorly planned building and land development, also destroys the resource base that supports economic activity, including the attributes of the coastal zone that attract tourists and the environment that supports fish nurseries etc.
- 5.21. All above mentioned causes could hinder the proper management of the coastal zone, playing a great role in magnifying the effects of socio-economic causes.
- 5.22. Consequently, are the current policies and governing tools effective in confronting the coastal degradation? An analysis of national, coastal and sectoral policies, and the current scattered and overlapping governance tools for the environment, ecology, maritime, water resources and wastewater, tourism, local administration, and management of natural and historical protected areas, may prove the need for policy and institutional reform as a matter of importance. These reforms are needed not only to meet Syria's future needs in relation to its very short sea coast, but also to confront the already accumulated problems in the coastal zone.

6. Why ICZM is of vital importance to Syria

- 6.1. Coastal areas in the Eastern Mediterranean region have ever possessed more favourable climatic and agricultural conditions due to their higher rainfall and abundant freshwater resources for human settlement than inland, apart from a few permanent river valleys.
- 6.2. During the first half of the 20th century, the east Mediterranean region suffered geopolitical changes that led the historical metropolis of Syria, Damascus, practicing a loose degree of sovereignty on most of Natural Syria (the Cham Land) coasts to the Mediterranean. Consequently, the current Syrian Arab Republic is a country of less coastal character than Syria used to be over its long history. Modern Syria is now predominantly an inland country, retaining a total seafront not exceeding 183 km length, against the total state area of 185,180 km², a ratio of 1,012 km² for every 1 km seafront – more than five times the Mediterranean states' average of 192 km² per linear km of coastline.
- 6.3. On a population basis; the Mediterranean seafront available for each 1,000 Syrians (year 2000) is only 11.5 metres, against 107.3 metres per 1,000 inhabitants for Mediterranean states. This ratio is even starker when compared to states such as France, Spain, Morocco, Egypt, and Turkey which also have very long seafronts to other seas.

- 6.4. Such a situation will naturally cause increasing pressures on Syria's coastal region in general, particularly its coastal zone, playing the role of a narrow "window" to the sea for such a large country.
- 6.5. Given these facts, it could be concluded that the coastal zone of Syria of proportionately greater importance, geopolitically, economically, demographically, socially, culturally, recreationally, ecologically, etc., kilometre for kilometre than for other Mediterranean states, this strategic concentration of interest reinforces the importance of an integrated approach – ICZM.
- 6.6. Only with proper adoption of the principals of Integrated Coastal Zone Management, Syria can maximize the benefit from its narrow window to the sea whilst preserving meanwhile the coastal environment and natural scene. The administrative division (governorates, cities, towns and villages), sectoral domains, and the land/sea discontinuity are not the proper approaches to realising the national aspiration of a resilient, productive, diverse, distinctive, attractive and healthy coast. An alternative approach, looking at the overall coastal zone as a specific unit of national strategic value, an individual distinguished area dynamic in reaction to both its seaward and landward area, is needed. Such approach is expected to be of high value for improving the economic, social and environmental situation not only in the coastal zone itself but countrywide. This will also form an important participation and input in the Mediterranean countries joint efforts for protecting the future of their common sea, enabling Syria to better fulfil its obligations stemming from the Barcelona Convention and its Protocols, including the necessary changes to meet at national level the provisions and requirements of the 7th Protocol on Integrated Coastal Zone Management.

The Syrian vision towards ICZM

7. The Syrian coastal aspiration

- 7.1. In the light of the aforementioned threats of:
- pollution;
 - concretization;
 - loss of ecological resources and biodiversity;
 - loss of cultural identity;
 - environmental degradation resulting in negative economic growth;
 - vulnerability to natural disasters and incidental emergencies.
- 7.2. Is there a visualization of a better coastal future for Syria? The Syrian IMC for ICZM tried to answer this question and develop a shared view about how Syria's coast should look like in the future, taking into consideration the critical national and global issues such as population growth and demographic changes, the impacts of climate change, economic development, and the impact of changes in transportation and telecommunications.
- 7.3. How can the Syrian IMC bridge the gap between the different interests and users of the coastal zone, and how it could lead and influence other decision-makers in this regard?
- 7.4. It is important to enlarge the scope of involved participation in decision-making; the more feedback the IMC collects, the better understanding the IMC will gain on what the concerned parties see as essential to a sustainable and diverse coastal asset.
- 7.5. How could this help in the formation of the vision? The ideas of each party will be a starting point for developing the shared view of the long-term priorities for Syria's coast. The priorities will be a key reference for the IMC in planning and decision-making.
- 7.6. The continuing population growth, combined with the continuing appeal of the coast for holiday makers, is resulting in increasing pressure on urban areas to expand, placing a greater demand on community facilities and infrastructure. This growth will impact on the natural areas and values that the local community and visitors treasure and appreciate. How should we ensure that these areas and values are protected, managed and enhanced into the future?
- 7.7. Some other priority issues that need to be considered:
- maximizing quality of life in the coastal region;
 - balancing development of the coastal zone and the hinterland;
 - adapting to climate change;
 - promoting efficient use of resources;
 - enhancing clean, productive agriculture;
 - encouraging environmental tourism; and
 - controlling pollution.
- 7.8. The vision towards Integrated Coastal Zone Management (ICZM) in Syria has looked at many inter-related biological, physical and human problems presently facing this zone. Their cause can be traced to underlying problems related to lack of knowledge, inappropriate and uncoordinated laws, failure to involve stakeholders, and lack of coordination between the relevant administrative bodies.

- 7.9. There is no simple legislative solution to these complex problems. Given the variety of physical, economic, cultural and institutional conditions, the response must be a flexible strategy focused on addressing the real problems and their causes.
- 7.10. An integrated, participative approach is therefore required to ensure that the management of Syria's coastal zone is environmentally and economically sustainable, as well as socially equitable and cohesive.
- 7.11. To ensure that quality of life in the coastal region of Syria can be maintained, and at the same time continue to develop sustainable income and jobs, the social dimension needs to be included in coastal spatial planning. Planning for social cohesion and equitable societies must be considered as equally important as planning for economic development.
- 7.12. In order to increase competitiveness, incomes and jobs – innovative and sustainable technology oriented developments on marine and coastal resources should be further supported.
- 7.13. In order to support planning and to guarantee qualitative data – the valuation (including monetary valuation) of coastal and marine resources and ecosystem must be considered in the national accounts. The data should be presented in such a way so it can support a more balanced decision taking in planning and management.
- 7.14. Furthermore, there is a need for an integrated information system encompassing the range of socio-economic and environmental data required for policy, research and communication purposes. To achieve this, an inventory of existing and required data is required.
- 7.15. In the domain of coastal protection and adaptation to coastal risks, an integrated approach is also needed. Projects in a Syrian context are needed to optimize the efficiency of the measures taken and to fine tune the methods used. This should result in a common and coordinated coastal safety strategy for Syria's coastline.
- 7.16. Tourism sector has been ranked as a top priority in the Syrian developmental policies and plans. The tenth five-year development plan for the years 2006-2010 has reflected this trend through emphasizing on various goals including the following:
- Syria is to be a tourist destination with international and regional sustainable developing position.
 - Tourism to contribute as a strategic industry in improving the general competitive advantages of the national economy, and to realise a balanced regional development.
 - The social, economical and environmental effects of tourism development process are to be improved.
 - Tourism is to be functioned as an actuator for achieving balanced regional development and upgrading living standards in the less developed regions in the country which possess tourism resources.
 - The function of natural and cultural constituents of tourism is to be magnified towards a planned tourist product that integrates its components (historical and natural sites, etc.) with tourism infrastructure, adding various tourist activities.

- Arab investments in tourism projects that serve Arab tourists are to be promoted.¹
- 7.17. Increasingly of late, and in line with the tourism and economic strategy, the seafront of the Syrian coastal region is attracting native and Arab real estate and tourism investments, either within or outside the administrative borders of cities and localities. These investments may negatively affect the natural attractiveness of the coast through loss of open space, open coastline and green lands, in favour of built construction, changing the type and nature of seafronts and spoiling the harmony of natural and socio-cultural traditional environments. This contradiction needs to be addressed from a sustainable development perspective.
- 7.18. Therefore, although it is of extreme importance to further promote coastal tourism, a sustainable approach must be supported. Innovation in services and products is an important element for moving in this direction.
- 7.19. In this connection there is a need to promote and support developments related to marine and coastal heritage (natural, cultural, historical) with a focus on generating products, services and information that are fit (in content and format) to enhance the role of environmental tourism and to improve the competitiveness of the coastal zone. This by turn requires an integration of economic, social and marine policies. Here lies a challenge in adequately translating natural and cultural heritage into tourist products that are supported by scientifically sound data and information and that can be managed within the social and environmental carrying capacity of Syria's coastal zone.
- 7.20. Tourism development constitutes an additional pressure on the environment in those sectors of the Syrian coast that are already in use for ports, harbours, commercial fisheries, and urban expansion such as the city of Lattakia and its surrounds. Furthermore, the tendency of a tourism developer to seek out new unspoiled sites, away from already congested beaches and towns, contributes to the trend leading towards urbanisation of the entire coastline.
- 7.21. However, efforts for an integrated approach in coastal tourism policy should be extended to support sustainable tourism development, including, but not limited to, the development of criteria and guidelines for eco-tourism, support mechanisms to promote the labelling of quality for tourist accommodation, products and services (e.g. ISO14001), local development schemes on the ground and providing support (expertise, data, etc.) for sustainable tourism development.
- 7.22. In order to achieve the aims of the coastal zone policy, ICZM needs to be seen as an important instrument and not as a component. The management of the land-sea interface is one element of ICZM that clearly illustrates the complexity of coastal zone processes. The importance of the land-sea interface and the role ICZM can play in tackling it should be recognized in the Syrian ICZM vision and strategy.
- 7.23. ICZM has a strong linking-power. It could be as a link between science and policy, a link towards different policy levels – each with their own competence levels (complementary), a

¹ Selections from the **Tourism Sector** in the **10th 5-Year Development Plan 2006-2010**.

link between land and sea, and an instrument to identify the main issues and conflicts in the land-sea interface of the coastal zone. To ensure a successful implementation of the integrated approach, ICZM must be given a formal place within the structure of decision-making processes.

- 7.24. In conclusion, a national vision and strategy looking at restoring and upgrading the coastal zone is a crucial issue to be developed by the Syrian government.
- 7.25. ICZM is a better way to realise Syria's coastal aspiration, but, to achieve ICZM the current approaches need to be developed. Administrative divisions, sectoral domains, and the land/sea discontinuity are not the proper approaches to addressing coastal zone management. There is a need to promote an alternative, supra-local approach looking at the overall coastal zone as a specific unit of national strategic value, an individual distinguished area dynamic in reaction to both its seaward and landward area.

8. The Syrian vision statement towards coastal future

“The future of Syria's coast is visualized as healthy, clean, safe and attractive coast that sustains the best possible quality of life for current and future generations; where people can enjoy economic prosperity that also secures good social, cultural, environmental and health-care standard conditions for all people.”

- 8.1. The future of Syria's coastal zone can be visualised as one which is:
- **Healthy** – free from pollution; air and soil pollution, solid wastes and coastal litters, surface and ground waters pollution, marine pollution either from maritime sources or land-based sources, providing a healthy environment for residents, visitors, fishery resources and wildlife.
 - **Attractive** – attractive to visitors, investors and to local people to promote a self-sustaining cycle of development, growth and job creation.
 - **Resilient** – resilient to the future uncertainties of climate change including sea level rise, warming and drought, resilient to natural processes; extremes of storms, earthquakes, salinization, erosion and desertification, resilient to human processes including the pressures of tourism, industry, transportation and urban development.
 - **Productive** – productive financially, in traditional, modern and future economic sectors, supporting the national economy, supporting the economic aspirations of the coastal community, competitive, high in value, increasing GDP, alleviating poverty.
 - **Diverse** – diverse in ecological terms; rich mosaic of marine and terrestrial ecosystems, diverse in experiential terms; blue and green, wild, rural and urban landscapes, traditional and modern lifestyles.
 - **Distinctive** – distinctive culturally as a Levantine coast; in architecture, traditions and landscapes recognising the Mediterranean as the "cradle of civilisation", distinctive in marketing; widely providing specific images when mentioned.

ICZM Measures
for the Syrian Coastal Zone

9. An integrated approach

- 9.1. The following measures combine the essential elements of a fully integrated approach to the sustainable management of the Syrian coast. In summary, these elements are: good governance, targeted environmental management and actions, effective stakeholder participation, capacity building and scientific support. All are equally key to achieving the vision; legal and financial measures are complimented by community and environmental action, supported by public awareness and training, and underpinned by research and training. A wide range of organisations and individuals, sectors of government and levels of administration will be responsible for translating them into action.
- 9.2. The process of translating these measures into action and the responsibilities, in both the short and long term, is set out in the following chapter “Towards ICZM in Syria”. The objective is to bring the measures together into an adopted national policy, coastal strategy and goals. Once achieved these will put Syria at the forefront of sustainable coastal management in the Mediterranean.

10. Legal and financial instruments

Setback

- 10.1. The maritime setback where construction is not allowed shall be extended from 75 metres currently to not less than 100 metres from the highest winter waterline, and to be further extended according to specific coastal topographic studies in areas likely to be directly and negatively affected by climate change and natural risks. This setback may be properly adapted for some projects of public interest that could not be erected behind, or for some coastal sectors having particular geographical or other local constraints.

Urban development, transport and infrastructure

- 10.2. Apart from the protected areas, open areas in which urban development and other activities are restricted or where necessary prohibited, shall be identified and delimited within coastal governorates' spatial plans.
- 10.3. The linear extension of urban development and the creation of new land transport infrastructure along the coast shall be avoided where possible.
- 10.4. Urban and transport development plans will respect environmentally sensitive corridors between the coast and its hinterland (such as watercourses, wetland and landscape).
- 10.5. The integrity of urban settlements will be protected by identifying areas of open landscape between urban areas to be protected from development.
- 10.6. Appropriate land on the inland side of existing urban areas to accommodate the forecast growth will be identified.

- 10.7. The protection of the coastal zone in general and the coastline in particular, shall be an essential component of municipalities' mandate that should be identified within the relevant master plans.
- 10.8. A high level of protection of the environment in the selection of location and the operation of agricultural and industrial activities and services facilities (including wastewater treatment plants) shall be guaranteed so as to preserve coastal ecosystems and landscapes and prevent pollution of the sea, water, air and soil.

Environmental Compensation

- 10.9. Appropriate environmental measures in the form new or restored wetlands, protected marine and land areas etc. will be required to compensate for the loss of natural features from unavoidable development.
- 10.10. Infrastructure, energy facilities, ports and maritime works and structures shall be subjected to strict environmental authorization and control so that their negative impact on coastal ecosystems, landscape and geomorphology is minimized.

Protecting the integrity of coastal landscapes

- 10.11. Development shall not block access to the coast or restrict coastal views.
- 10.12. The historic and cultural identity of the coast shall be respected in the style and scale of new development.

Protecting Coastal Economic Assets and Potential

- 10.13. The coast will be protected from development that might prejudice the ability of essential economic activities requiring a waterfront location uses to expand or adapt (these include ports, marine industries, fisheries etc.).
- 10.14. Adaptation of the coastal and maritime economy to the fragile nature of the coastal zone and protection of marine and coastal resources from pollution shall be ensured.
- 10.15. Codes of good practice among public authorities, economic actors and social organizations shall be promoted e.g. encouraging major economic actors to obtain ISO 14001 under which organisations will:
- implement, maintain and improve an environmental management system;
 - assure conformance with their own stated environmental policy ;
 - demonstrate conformance;
 - ensure compliance with environmental laws and regulations;
 - seek certification of its environmental management system by an external third party organization.
- 10.16. Maritime economic activities shall be conducted in such a manner that ensures the fullest possible preservation of marine and coastal ecosystems in conformity with the rules, standards and procedures of the relevant international conventions. Specific attention shall

be accorded to full integration of the stipulations of relevant regional and international instruments and strategies into the national legislative and regulatory frameworks, with upgrading the implementing institutional set-ups.

Access

- 10.17. The right of free access by the public to the sea and along the shore, except of strictly protected sites for safety, security, or the protection of natural and cultural resources, shall be respected.
- 10.18. The movement and parking of land vehicles, as well as the movement and anchoring of marine vessels, in fragile natural areas on land or at sea, including beaches and dunes, shall be restricted or, where necessary, prohibited. These areas shall be identified by authorised scientific and technical bodies.

11. Environmental Protection and Eco-system management

- 11.1. Environmental concerns will be integrated into the rules for the management and use of the public maritime domain and properties, including establishing an Environmental Directorate within the maritime authority (General Directorate of Ports).
- 11.2. The need to protect fishing and spawning areas, important marine meadows, aquaculture sites and threatened species habitats shall be taken into account in planning and authorizing coastal and marine development projects. Relevant scientific and technical bodies (e.g. Marine Research Centre at Lattakia) shall be duly involved in planning and authorizing process.
- 11.3. The compatibility of fishing practices with the sustainable use of natural marine resources and the protection of habitats and species shall be ensured with the participation of local fishing communities, according all necessary protection and support through promoting sustainable fishing methods.
- 11.4. To the fullest possible extent, the excavation and extraction of marine and coastal mineral resources shall be strictly regulated in order to protect valuable eco-systems, spawning areas and to prevent coastal erosion.

12. Action Plans and Resource Management

Community-based action

- 12.1. Community-based environmental improvement and poverty reduction initiatives shall be supported, and successful projects and experiences shall be disseminated.

Water and Waste management

- 12.2. The use of natural resources such as power, water, and land, by the various economic activities shall be rationalized and the needs of future generations shall take into account.
- 12.3. Respect for integrated water resources management and environmentally sound waste management shall be ensured, including development of new approaches and regulations with regards to industrial wastewater treatment, recycle and discharge. The objective will be to achieve the targets of the Horizon 2020 initiative, under which Euro-Mediterranean governments aim to tackle the top sources of Mediterranean pollution by the year 2020 through focussing on industrial emissions, municipal waste and urban waste water.

Environmentally Sensitive Sites

- 12.4. Economic exploitation of the coast will respect the fragile nature of the coastal zone and the need to protect marine and coastal resources.
- 12.5. The coastal zone forests and afforestation sites shall be clearly identified, monitored and sustainably managed. Measures including early alert systems and the upgraded capacity of local fire brigades will ensure the proper protection from fires. Forest areas will be protected from land-use change.
- 12.6. Rivers, lakes, estuaries and marshes shall be integrated into the ICZM process in order to maintain and enhance their positive role in the coastal environment.
- 12.7. Coastal dunes (e.g. Snobar Jableh) shall be preserved and, where possible, rehabilitated in a sustainable manner.
- 12.8. Coastal and marine habitats and species of high conservation value shall be protected through legislation, planning and management within the context of regional and international cooperation for the implementation of common programmes on the protection of marine habitats. All priority sites should be brought up to a favourable conservation status by 2020.
- 12.9. In cooperation with national and regional scientific and technical bodies, degraded marine, coastal and terrestrial prominent ecosystems shall be identified, inventoried and studied. Rehabilitation and management programmes shall be formulated, prioritized, financed and implemented.
- 12.10. Special consideration shall be accorded to Arwad Island and other small islands off Syria's shores, including:
- the promotion of environmentally friendly activities
 - special measures to ensure the participation of the inhabitants in the protection of the coastal ecosystems and cultural heritage at Arwad Island, based on their local customs and knowledge and the specific characteristics of the island environment
 - the necessity to ensure participation in national coastal strategies, plans and programmes and management instruments, particularly in the fields of transport, tourism, fishing, waste and water management.

Cultural heritage

- 12.11. All appropriate measures to preserve and protect the cultural, in particular archaeological and historical, heritage of the coastal zone, including the shoreline and underwater components, shall be adopted and applied in conformity with the applicable national and international instruments.
- 12.12. The preservation in situ of this cultural heritage is considered as the first option including according specific protection to sites where living heritage is threatened by development projects or superficial modernization processes. Amongst other supportive measures, specific attention shall be accorded to involve local residents and local communities in the long-term preservation of these sites by improving services, infra-structure and on-site interpretation, attracting visitors and promoting compatible small-scale income-producing activities.
- 12.13. Amongst other components of the coastal heritage, the elements of the underwater cultural heritage, if removed from the marine environment, shall be conserved and managed in a manner safeguarding their long-term preservation and ensuring that they are not traded, sold, bought or bartered as commercial goods.

Potential ICZM project areas

- 12.14. Local areas under the most intensive competitive pressures from development, recreation and other uses will be identified and management programmes implemented to reconcile these pressures in cooperation with local communities.

Tourism

- 12.15. Sustainable coastal tourism, sporting and recreational activities that preserves coastal ecosystems, natural resources, landscape, cultural heritage, and respects the local traditions shall be encouraged, including the promotion of specific forms of coastal tourism such as cultural, rural and ecotourism, and regulating or, where necessary, prohibiting the practice of damaging sporting and recreational activities.

13. Climate Change

- 13.1. The exploitation of renewable energy resources of the coast such as solar and wind energy will be supported.
- 13.2. A vulnerability assessment of the coast to the impacts of climate change will be carried out and the appropriate adaptation measures identified.

14. Participation and Awareness

- 14.1. With a view to ensuring efficient governance throughout the process of the integrated management of the coastal zone, the Government of the Syrian Arab Republic shall take the necessary measures to ensure the appropriate involvement in the phases of the formulation and implementation of coastal and marine strategies, plans and programmes or projects, as well as the issuing of the various authorizations, of the various stakeholders, including:
- the territorial communities and public entities concerned;
 - economic operators;
 - non-governmental organizations;
 - social actors, and the public.
- 14.2. With a view to ensuring such participation, the competent authorities shall provide information in an adequate, timely and effective manner. Mediation or conciliation procedures and a right of administrative or legal recourse should be available to any stakeholder challenging decisions, acts or omissions, with respect to plans, programmes or projects concerning the coastal zone.
- 14.3. Awareness-raising activities aimed at the wider community, such as the annual Coast Day, promoting the environmental, social and economic value of the coast shall be supported.

15. Technical and scientific support

Research

- 15.1. Research to support the sustainable use of coastal and marine resources will be given a high priority within national research priorities.
- 15.2. Interdisciplinary specialized scientific research on integrated coastal zone management and on the interaction between activities and their impacts on the coastal zone shall be supported (e.g. participation of Remote Sensing Commission, Higher Institute of Marine Research, Institute of Environment) in order to:
- further knowledge of integrated coastal zone management
 - contribute to public information
 - facilitate decision-making.
- 15.3. A comprehensive coastal data base and Geographic Information System (GIS) will be developed for the coastal zone.

16. Human Resources

Training

- 16.1. Training programmes on ICZM and key coastal issues will be developed for the following target groups:
- The staff of institutions with a coastal responsibility, primarily through in-service training.
 - Politicians, key decision makers and opinion formers in the coastal zone through events and workshops.
- 16.2. In addition, the potential for the development of a university centre of excellence in coastal and marine resource management and associated courses will be assessed.

17. Administrative arrangements, duties and responsibilities

17.1. National

- The current ICZM Inter-Ministerial Committee shall continue its functions until the formation of the proposed National Steering Board that shall lead and monitor the whole ICZM process as described in paragraph 19.4.
- The Ministry of State for Environmental Affairs shall centralize all ICZM executive and coordination roles until the set-up of the proposed supreme body which will undertake the coastal functions stipulated in the proposed coastal law as described in paragraph 19.7.

17.2. Regional

- At regional (coastal) level, ICZM executive coordination between terrestrial and maritime authorities shall be established through a three-party committee composed of high-level representatives from Latakia governorate, Tartous governorate, and the General Directorate of Ports.
- The committee shall keep the Ministry of State for Environmental Affairs, as well as the IMC, informed, on regular basis, on the progress in discharging its functions.

17.3. Local

- Reporting to the Governor, an ICZM extended committee shall be established in each of Latakia and Tartous governorates, involving local stakeholders in coastal planning, decision-making, controlling and implementation monitoring functions.
- The governors of the two coastal governorates shall keep the Ministry of State for Environmental Affairs, as well as the IMC, informed, on regular basis, on the progress in ICZM at the local level.

17.4. Experience

Success and failure experiences gained in performing above points (18.1 through 18.3) shall be duly considered by the legal-technical committee that shall draft the proposed coastal law (indicated in paragraph 19.7), in order to formulate the long-term most efficient ICZM administrative functions and institutional set-ups.

Towards ICZM in Syria

18. Towards ICZM in Syria

The Government of the Syrian Arab Republic is determined to initiate and actuate a process that translates the Syrian ICZM vision into definite targets. These targets are to be methodically achieved by developing the national policy according to (and in adaptation with) the new orientations that support fulfilment of the obligations incurred from Syria's signatory on January 2008 to the 7th Protocol of Barcelona Convention on Integrated Coastal Zone Management.

18.1. In this context, the targets could be classified into:

- Short-term goals, and;
- Strategic goals

Short-term goals (2 years)

18.2. To introduce the ICZM concept and requirements into the 11th Five-year National Development Plan for the years 2011-2015, the preparation for which has just been initiated, so as to involve ICZM rules and policies into the sectoral plans for each concerned Ministry or public body, with a harmonizing role to be played in this process jointly by State Planning Commission and the Ministry of State for Environmental Affairs.

18.3. To hold a well prepared National Coastal Conference that will outline coherent policies for coastal environmental protection and sustainable development, discuss and adopt the national policy, strategy, and goals for ICZM. A subcommittee reporting to the Minister of State for Environmental Affairs to be established for conference preparations.

18.4. To establish an extended National Steering Board, entrusted with necessary power by the Council for Environment Protection and Sustainable Development headed by the Prime-Minister, that shall lead and monitor the whole ICZM process, composed of high level representatives from:

Central bodies:

- Ministry of State for Environmental Affairs;
- Ministry of Local Administration;
- State Planning Commission;
- Ministry of Transport;
- Ministry of Housing and Construction;
- Ministry of Irrigation;
- Ministry of Agriculture and Agrarian Reform;
- Ministry of Industry;
- Ministry of Oil and Mineral Resources;
- Ministry of Tourism;
- Ministry of Culture;
- Ministry of Economy and Commerce;
- Ministry of Electricity.

Coastal local bodies:

- The 2 coastal governorates (Lattakia and Tartous);
- The 2 Environmental Directorates in the coastal governorates;
- General Directorate of Ports;
- City councils of the 4 major coastal cities (Lattakia, Jableh, Baniyas and Tartous)
- Academic and research institutions: (Tishreen University, General Commission for Remote Sensing).

Private Sector:

- Chambers of Commerce and Industry in the two coastal governorates;
- Coastal region's Chamber of Tourism.

Civil Society:

- Environment protection societies in the coastal region;
- General Union of Peasants;
- Fishermen societies.

18.5. Under the direction of this national steering board, set a long-term comprehensive national strategy with a panoramic coastal vision to harmonize sectoral activities, as well as national and sectoral plans for sound integrated coastal zone management accompanied by performance indicators.

18.6. To properly consider ICZM rules and policies during the current preparation of the regional plans for the two coastal governorates, as a necessary step towards a long-term spatial planning for land and seafront uses in the coastal zone, with consideration of its economic, social and environmental interactions with the hinterland, and with the whole country, cross-borders and overseas. The Regional Planning office of the Ministry of Local Administration to raise quarterly reports on progress and achievements to the national steering board mentioned in paragraph 19.4.

Strategic goals

18.7. To enact a coastal law which shall identify the geographic parameters of the coastal zone, outline the protective and upgrading stipulations to be applied, define a supreme body that will oversee the management of this zone, and delimitate competencies between the different central and local authorities and administrations. A legal-technical drafting committee, reporting to ICZM national steering board, shall be established for this purpose. *(Estimated timeframe for achievement: 2012)*

18.8. To set-up the supreme body (mentioned in the preceding paragraph 19.7) and build-up its capacity of human and financial resources as appropriate to discharge its functions as stipulated in the proposed coastal law (mentioned in the preceding paragraph 19.7). *(Estimated timeframe for achievement: 2012)*

- 18.9. To set-up mechanisms for following-up, monitoring, reporting to the ICZM national steering board and the Council for Environment Protection and Sustainable Development headed by the Prime-Minister. *(Estimated timeframe for achievement: 2012)*
- 18.10. The Syrian government shall enforce in the coastal region the anti-pollution measures adopted in various strategies and action plans, particularly the National Environmental Strategy and Action Plan (2003) and the National Action Plan and Sectoral Plans for the Reduction of Pollutants Releases from Land Based Sources in the Coastal Region (2005), which have been adopted by the Council for Environment Protection and Sustainable Development in the year 2008. *(Estimated timeframe for achievement: as specified in each plan; 2010-2025)*
- 18.11. To promote regional and international cooperation in marine and coastal issues within the framework of Barcelona Convention and its Protocols and other relevant frameworks. *(Estimated timeframe for achievement: continuous process)*
- 18.12. At this stage, the above goals are of a flexible indicative nature and will be subject to wider and deeper discussions with other decision-makers and stakeholders within the proposed coastal conference to be held as an essential activity within the aforementioned short term goals.
- 18.13. However, the conclusion of the IMC meetings had introduced ambitious, but realistic, vision and policy, that could positively effect the future of the economic, social and environmental situation not only in the coastal zone itself but countrywide as well.
- 18.14. The Syrian inputs in this regard will also form an important contribution to joint efforts of the Mediterranean countries for protecting the future of their common sea; enabling Syria to better fulfil its obligations stemming from the Barcelona Convention and its Protocols, including the necessary preparations to meet at national level the provisions and requirements of the 7th Protocol on Integrated Coastal Zone Management.

