

Integrated Coastal Zone Management (ICZM) Approach: Algerian National Strategy Case

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Abstract:

The Algerian Coastal zones comprise more than 60% of the country's business and economic units and more than half of the country's population, which make it vulnerable to various threats, challenges and conflicts of use between concerned parties. Therefore, a call for a participative and coordinated approach is necessary.

In this context, this study aims at analyzing the stages, projects and prospects of the national integrated coastal zone management (ICZM) strategy, which is adopted by Algeria to achieve sustainable levels of economic and social activity in its coastal zones while protecting the coastal environment.

Keywords: integrated coastal zone management, ICZM, governance of coastal areas, Algeria, sustainable development.

JEL Classification : Q56, Q57

مستخلص: تعتبر الأقاليم الساحلية في الجزائر من أهم الأقطاب التنموية الرئيسية حيث تضم أكثر من 60٪ من الوحدات الاقتصادية في البلاد، ويعيش بها أكثر من نصف سكان البلاد؛ مما يجعلها أكثر عرضة للعديد من التهديدات ونزاعات الاستخدام بين الأطراف المعنية. وبالتالي، تبرز ضرورة التوجه نحو أساليب تنمية حديثة تقوم على المقاربة المشاركة والحكومة والتكامل بين مختلف الفاعلين.

تهدف هذه الدراسة إلى تحليل الخطوات، المشاريع، وآفاق الإستراتيجية الوطنية للتسيير المندمج للمناطق الساحلي (ICZM)، التي اعتمدها السلطات الجزائرية بهدف تحقيق مرتفعة من النشاط الاقتصادي والاجتماعي المستدام في المناطق الساحلية في ظل حماية وصون البيئة الساحلية.

الكلمات المفتاحية: التسيير المندمج للمناطق الساحلية، حوكمة المناطق الساحلية، الجزائر، والتنمية المستدامة.

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Introduction:

Alike all other worldwide coastlines, the Algerian coastal zones constitute one of the most productive areas in the country, offering various valuable ecosystems that have always attracted anthropogenic activities, such as: business, tourism, transport, fishing...ext.

In fact, more than 15 million Algerian citizens live near coastlines currently. **(MATEV, 2013, p. 25.)**

But this intensive concentration of population and excessive exploitation of natural resources exposes coastal zones to various human pressures leading to pollution, degradation, biodiversity loss, space congestion problems, and conflicts of use. No need to mention that coastal zones are so vulnerable to climate changes and natural hazards that could cause risks that are already changing the livelihoods of coastal communities; such as: flood, erosion, sea level rise, and extreme weather events.

Because the well-being of populations and the stability and continuance of businesses in coastal zones are based on its environmental status; continuous process of planning and long-term management approaches, such as integrated coastal management are often required to enhance coastal resources protection whilst increasing the efficiency of their uses.

The Problem of the Study:

In Algeria, the issue of sustainable coastal zones development is considered as a main priority of the Algerian State since the late 20th century. In this context, Algerian authorities have adopted recent methods and approaches to implement sustainable development such as integrated coastal zone management (IZCM). This state of fact puts it in front of real challenges to provide an appropriate climate for effective implementing of this unique development method, and to adapt it to local data and development priorities.

This study therefore focuses on analysing the Algerian integrated coastal zones management strategy, in all its various stages, projects, approaches,

challenges and prospects. Thus, we can tackle the study topic by answering this main question: How can national integrated management strategy contribute to the Achievement of sustainable development in Algerian coastal zones?

Relevance of the Study:

This study draws its importance from the basic role played by the fragile and sensitive coastal zones in the development of Algerian economy, which prompted the Algerian authorities to pay greater attention to their coastal areas and to mobilize all necessary potentials for their protection and development in accordance with the various global principles and methods; which emphasizes the need to use the **integrated coastal zone management (IZCM) approach**.

Methodology of Study:

Considering the type of the studied topic, and in order to address the problematic issue, we used analytical and descriptive approach, inductive approach and analytical statistical methodology, relying on some statistical tools, such as percentages and rates derived from national official reports.

I- What is Integrated Coastal Zone Management?

Coastal zones alike other systems with important environmental, economic and social values and with intense interchange within and between these various and multiple processes; need to be managed in an integrated way.

The concept “Integrated Coastal Zone Management” (ICZM) was recognized as the way forward for the sustainable development of coastal zones since 1992, during the Earth Summit of Rio de Janeiro (the United Nations Conference on Environment and Development), Which is considered as the first coastal environmental international legislation. **(United Nations website, Agenda 21)**

As defined by Article 2 of the ICZM Protocol 2008 **(UNEP/MAP/PAP Protocol, 2008, p. 8)**: “Integrated coastal zone management means a

dynamic process for the sustainable management and use of coastal zones, taking into account at the same time 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”.

Barcelona Convention 2014 (**UNEP/MAP for Barcelona Convention, 2014**) also defined ICZM as: « a dynamic process of the sustainable management and use of coastal zones taking simultaneously into account the following aspects: 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 maritime and land elements ».

II- Integrated Coastal Zone Management Approach & Principles :

Managing coastal zone with a sectorial approach has not been able to achieve satisfactory results because of interdependence of activities and resources in coastal zones. In fact, combined impacts of economic sectors generate acute problems, and cause conflicts between sectorial interests.

Therefore, effective management of coastal zones should be based on the combined effects of sectorial activities on each other and on coastal resources. Thus, ICZM remains the key tool for delivering the wide range of sectorial and institutional policies in the coastal zone (**TETT, 2011, p .31**).

Integrated coastal management aims at coordinating the application of the different policies and activities affecting the coastal zone such as : nature protection, aquaculture, fisheries, agriculture, industry, shipping, tourism, development of infrastructure and adaptation to climate change.

It will contribute to sustainable development of coastal zones by the application of an approach that respects the limits of natural resources and ecosystems, the so-called 'ecosystem based approach'. (**European Commission website, 2016**).

According to (**European Commission, 1999, p.30**) The “Integrated” in ICZM refers both to the integration of objectives and to the integration of the multiple instruments needed to meet these objectives. It means:

- Integration of all relevant policy areas, sectors, and levels of administration;
- Integration of the terrestrial and marine components of the target territory;
- Integrated in both time and space, and is inherently multi-disciplinary.

In this context, **(Michael Scoullos, 2012, p113)** Indicates that: « Integration goes beyond a simple coordination, It is a comprehensive approach still “coordinated” but not “homogeneous ». Thus, it means proper understanding of:

- Basic biogeochemical processes in nature;
- Basic socio-political and economic parameters;
- Basic cultural and behavioural features of groups involved.

III- Integrated Coastal Zone Management in Algeria :

1- The National ICZM Strategy Vision:

At the turn of the 20th (twentieth) century, the Algerian State adopted a new policy based on a holistic, integrated view that aims to establish sustainable levels of economic and social activity while protecting environment, in the whole country and especially in the coastal zones.

Thus, the Ministry of « **Environment and Development of the Territory** » has elaborated a national strategy for integrated coastal zone management ICZM in 2014 based on common Mediterranean methodology under the support of the "**the Action Plan for the Mediterranean**"*, since the existence of a national strategy for ICZM was considered as the official proof of the ICZM principles implementation as imposed in the article 18 of the ICZM Protocol in the Mediterranean 2008 (**UNEP/MAP/PAP Protocol, 2008, p. 15**): « Each Party shall further strengthen or formulate a national strategy for integrated coastal zone

* Mediterranean Action Plan is a regional cooperative effort involving 21 Mediterranean countries bordering the Sea and contracting parties to the Barcelona Convention and its Protocols, it aims to meet the challenges of protecting the marine and coastal environment while boosting regional and national plans to achieve sustainable development.

management and coastal implementation plans and programs consistent with the common regional framework... ».

The Algerian national ICZM strategy expresses a clear common national vision for sustainable development in coastal zones. It is based on governance of multiple interests, identifying challenges and priorities and controlling implementation mechanisms and means. In this regard, the National Plan for the Development of the Region (2030SNAT) is one of the tools paving the way to the policy of protecting and promoting the coast as it aims at responding to the imbalances of the population and activities, and to preserve natural and cultural capital.

2- Basic Phases of the Algerian ICZM Strategy:

According to the Ministry of Environment and Territorial Development (2014), Algerian national ICZM strategy consists of three phases: comprehensive analysis of the existing situation; defining the operational mechanisms and adjusting the levels of implementation.

A. -Phase One: Comprehensive Analysis of the Existing Situation

This phase requires priorities and challenges identification, understanding of the dynamics in coastal region, and highlighting the main threats and sectorial imbalances:

a- Algerian Coast Potentialities:

The Algerian coast, according to the administrative organization Act of 1984, consists of 14 coastal provinces (wilayas), with a total of 136 municipalities having coastal boundaries; illustrated in **Figure (01)**, which contains an explanatory map of the administrative organization of the Algerian coast.

Figure N°(01) : Map of the administrative organization of the Algerian coast



Source: MATEV, 2013, p: 11.

a-1 Regulatory Legal Framework:

Legally, **ICZM** has horizontal dimension being related to different ministries (environment, fishing, territorial development, tourism, etc.), yet vertical as it affects central government institutions and local administrations (**MATEV, 2013, p.17**). Therefore, the legal texts concerning the coasts are many various, and issued from different ministries. The most important laws related directly to the coast are:

- Law No. 02/02, dated February 05th, 2002: including the protection and valorisation of the coast;
- Act No. 01/20, dated December 12th, 2001: relating to the development of the Territory and sustainable development;
- Law No. 03/10, dated July 20th, 2003: on the protection of the environment within the framework of sustainable development;
- Law No. 04/05, dated august 14th, 2004, amending and completing the law No. 90/29 of December 01st, 1990: on the town planning and urbanism;
- Executive Decree No. 04-113, dated April 13th, 2004 relating to the organization, operation and functions of the National Coastal Conservancy;
- Law 03/01, dated Feb. 13th, 2003, on tourism sustainable development;
- Law 03/03, dated Feb. 17th, 2003, on expansion zones and tourism sites.

The analysis of legislative and regulatory texts related to the coast briefly shows that:

- The number of legal texts are increasing and changing several times;
- Sectorial and partial legislations are developed by ministerial departments according to specific interests and within a sectorial vision. Despite passing it on parliament and giving it a national dimension;
- The absence of a unified legislative framework, leading to conflict between the parties concerned;
- The three institutions interested in **ICZM** process, namely: the Supreme Council of the Sea, the National Coastal Conservancy, and the Coastal Coordinating Council; have different legal situations, and are belonging to different departments that interfere with their aims and powers.

a-2 The Environmental Framework:

- **Coast Morphology:** The Algerian coast extends from Marsa Ben Mehdi westward to Cap Roux eastward along 1622 km, in the form of a series of bays, featuring high slopes that border its larger part. (**MATEV, 2013, p.12**)

- **Biodiversity:**

The Algerian coast contains highly productive, fragile and sensitive ecosystems with significant biological diversity such as dunes, lagoons and sea grass beds. **Ministry of Environment and Territorial Development (2013)** Report indicates that:

- 4150 marine species (flora and fauna) were counted in all the Algerian coastal and marine areas, including 4014 confirmed species (distributed in 950 platoon and 760 families).
- Marine plant wealth is estimated at 713 species distributed in 71 platoon and 38 families;

Taking into account, this biodiversity assessment is less than the actual real value, as most of the surveys have been carried out in the most accessible depths (0-200 m) or less than 40 metres for the hard depths. **(Grimes, 2004, p .362)**

a-3 demographic & urban concentration:

The population of Algeria stood at 40,000 million by 1 January 2016, according National Statistical Office statistics (NSO, 2016), with an increase of more than 6 million over total population of 2008, which was estimated at 34.1 million. **(National Statistical Office (NSO) website, 2016).**

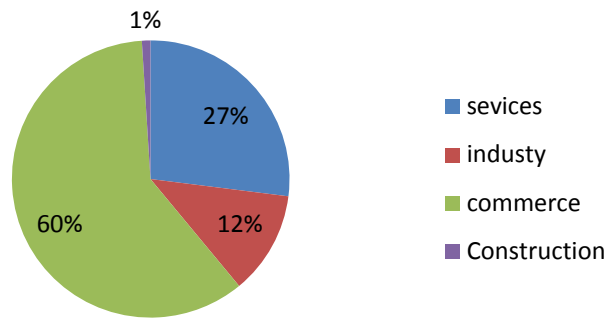
About 63% of population lives in the north, which represents 1.9% of national territory, with a density of nearly 274 inhabitants/ km², compared with 14 people/ km² at national level. **(National Statistical Office (NSO) website, 2008).**

Therefore, Algerian territory is characterized by the so-called **coastalization** phenomenon, with a strong urban polarization in the north in general, and especially in the "coastal strip" at a depth of 50 to 100 km. This unbalanced population distribution is principally caused by several conditions, including: The appropriate climate in the north, the high agricultural value and the availability of irrigation possibilities; the important tourism possibilities; industrial clusters, the stable security situation.

a-4 Socio-economic Institutions:

The importance of economic activity in coastal provinces has been clarified by the 2012 economic census realized by the national Statistical Office, as 60% of national economic units (construction, trade, industry and services) are located in coastal wilayas.

Figure N°(02): Percentage distribution of economic sectors in coastal



provinces

Source : National Statistical Office (NSO) website, Recensement Economique, 2012.

Figure (02) clarifies that commerce occupy the largest share of economic sectors by 60%, while service institutions constitute 27%, industrial industries account for 12%, and only 1% for construction enterprises.

a-5 Development Sectors:

- **Industry:** According to the 2012 economic census (**NSO website, 2012**), coastal wilayas (especially Oran, Algiers, Skikda and Annaba) comprise around 43162 industrial units representing 44.22% of the total national industrial units. The most invested industrial sectors include: petrochemicals, iron and steel, chemistry, construction materials, mechanical and electronic industries and food industries.

- **Agriculture:** Cultivated areas in coastal wilayas have good peasant capacities. They represent 19,5% of the country's total cultivated areas equivalent to 1.647.088 hectares. (**MATEV, 2013, p. 25**)

- **Tourism:** Tourism occupies a special place in sustainable coastal planning in Algeria. In fact, a large proportion of residential offers are concentrated in coastal wilayas (**Mate, 2014, p. 15**). This situation is explained by a

combination of factors: coastal attraction, the prevalence of coastal tourism and the dominance of urban tourism in coastal cities.

Thus, the current tourism policy aims at reducing the focus on the coasts by establishing zones of expansion and tourism sites ZETS in the land-locked areas.

-Fishing: For many years, fishing and aquaculture capacities have been poorly exploited (**MATEV, (NRE), 2007, p.115**), despite the appropriate natural conditions and the abundance of the Algerian coastline on fisheries stocks. In this regard, Algeria aspires to raise fish production to the limits of 170,000 tons per year in order to reach a 200,000 production ceiling in 2020, instead of the current annual average of 120,000 tons (**Ministry of Fisheries Annual report, 2010**).

b-Pressures and Threats:

Knowing that 63% of the population and most economic activities are located less than 50km from the coast in Algeria, great and various pressures are threatening Algerian coasts continuously. (**MATE, 2014, p. 28**). This concentration results in a population density almost 20 times the national average, leading to major problems such as: strong urbanization; overexploitation of resources; urban, industrial and agricultural pollution; coastal erosion, and degradation of natural and cultural sites. To that are added the limited implementation of coastal law, and lack of public awareness and participation.

b-1- pollution:

Pollution risks threaten a large part of coastal areas, especially as 70% of coastal municipalities dump solid waste at random mouths (**Ministry of Water Resources annual report, 2012**). At the same time, many industrial units discharge wastewater directly into public networks or in nature without treatment. Moreover, the beach wastes that grows sharply during the summer season. (**MATEV-dpeu, 2011**).

As for marine pollution, it negatively affects marine biodiversity, fishing activities and swimming water. National Report on the State and Future of

the Environment (2007) points out that more than a quarter of the beaches of Algeria are polluted by germs, especially in Algiers, with a shocking rate of 62% (**MATEV, (NRE), 2007, p.156**). Indeed, the quality of swimming water degradation due to chemicals and toxins is not much different in the provinces with important industrial poles, such as the case of: Annaba, Skikda, Oran and Mostaganem.

b-2 Urban and Tourist Pressures :

- **Loss of Tourism Potentialities:** the indiscriminate or excessive growth of Tourism could reduce tourist attractions because of the negative effects such as ecosystem balance destruction, coastal landscapes deterioration and pollution.

- **Negative Impacts of Excessive Coastal Urbanization:** The artificialisation level of coastal zones (shifting from natural form to full industrial urban form) due to tourist pressures and urban sprawl reaches, in some cases, to thresholds that threaten the ecosystem, especially in the major wilayas.

Among the results of extreme coastal urbanization we find: loss of beaches, deterioration and loss of sand dunes, urban-shaped chaos, illegal urbanization of public land, loss of tourist land.

In this regard, the zones of expansion and tourism sites (**ZETS**) have lost - due to other types of illegal investment- 21% of their total areas between 1988 and 2011 an equal of 6,000 hectares, as shown in table 01. (**Ministry of Tourism and Traditional industries Annual report, 2011**)

Table N° (01): Illegal occupancy rate of ZETS

wilaya	Number of ZETS	Superficie (HA)	illagaly occupied area %	The remaining space
Algiers	13	2737.75	%58	1562.38
Jijel	19	4232	%42	3150.44
Boumerdes	11	4738	37%	3408.57
Tipaza	22	1950	19%	1456.29
Tlemcen	9	549.05	39%	428.5
Oran	9	1727	19%	1505.35
Skikda	9	2082	17%	1673.74
Annaba	5	2436	14%	2187.18
Bejaia	14	1254.5	12%	1134.34
Tizi Ouzou	8	1973	11%	1873.74
Ain Timouchent	10	1901	9%	1799.5
Chlef	10	1691.5	9%	1567.2
Mostaganem	16	4724.8	7%	4485.79
Al-Tarf	5	5010	2%	4902.5
Total	160	37006.6	21%	31094.45

Source : Ministry of Tourism and Traditional industries Annual report, 2011.

-Impacts on Water Resources:

The amount of water consumed by tourists up to 350 liters per day, i.e. twice the consumption of the Algerian individual (**MATEV, (NRE), 2007, p.206**), resulting in reduced reserves and increased waste water production.

2- Phase Two: Defining the Operational Mechanisms

The ICZM Process is designed not just to produce a plan or a strategy for a coastal area. In the end, a plan or strategy's success or failure depends on its ability to catalyze change.

Thus, defining partnerships and operational mechanisms, as well as adjusting and adapting the legal framework ,developing institutional instruments, and determining financing sources are prerequisites for the successful realization of the national **ICZM** strategy .In response to this, there is a need for a profound change in administrative methods as well as organizational and fiscal instruments; in addition to a need for better level of involvement and integration of social, economic and scientific actors.

In this context, Algerian government has recently created : the National Agency for the Protection of the Environment; the National Coastal Conservancy; the Coastal Area Management Program (CAMP/PAC); the Development and Management Scheme for the Coast (SDAL); the national institute for research in marine and coastal zone planning (ISMAL) and strengthened a database, with a large program of collecting and analyzing shore data, in order to establish a sedimentary map of the shore, with the aim of gaining a better knowledge of morphological and hydrodynamic parameters.

- **Institutions and organizations Network Analysis:** The process of institutional and organizational analysis allows for an understanding of structures, institutions, methods and modes of interaction, as well as for assessing the level of integration of policies and decision-making procedures for coastal areas to identify their strengths and weaknesses in order to achieve better integration. Most important elements of the analysis at the international and national levels can be summarized in Table (02).

Table N° (02) : Analysis of Algerian coastal zones Institutions and organizations Network

At the national level:	At the international level:
<p>Regulation:</p> <ul style="list-style-type: none"> -The absence of a dedicated parliamentary committee on coastal and Marine issues. -There is no realistic implementation of real decentralization. -The general regulation is relatively framed and organized, but local representatives are moving on a sectoral basis. -Sever lack of participation and representation of other stakeholders (civil society, scientists and associations,... etc.). 	<ul style="list-style-type: none"> - Algeria has ratified and implemented most international and regional agreements and their main protocols; - Has permanent representation in major conventions and good participation in scientific technical committees such as those of the Barcelona Convention.
<p>Governance:</p> <ul style="list-style-type: none"> -Real coordination within national administrations on marine and coastal affairs is limited. <p>The Supreme Council of the Sea is still inactive, although its role is ensuring coordination between institutions in cross-decisions.</p> <p>Limited consultations of non-governmental actors .</p> <p>Some sectors, such as energy, are centralized and closed to governance and coordination.</p>	<ul style="list-style-type: none"> - Algeria is a member of the Union for the Arab Maghreb (UMA), which can contribute to the development of regional cooperation on coastal and marine issues, despite the reluctance of the parties involved. - The process of establishing the Mediterranean Observatory for Sustainable Development (OMDD) in Oran has already progressed, which would benefit the national strategy for the integrated management of coastal zones.
<p>Policies:</p> <ul style="list-style-type: none"> -Interest in the development of policies of traditional sectors such as transport, fishing, environment, tourism. Often, through limited sectoral spatial methods. -No clear vision of research policy in coastal areas, but work on its development is in place. 	

Source : Prepared by the researcher depending on MATEV, 2013, p :61.

3-Phase Three: Adjusting Implementation levels

The First Level (Administrative level): coastal wilayas and municipalities constitute the levels of implementation of public development and conservation and valorization programs.

The Second Level: coastal and marine area, constitute the level of implementation of coastal law.

The Third level: the objective level that is concerned with the subject and not the place, where the division is based on sectorial activities rather than on the basis of geographical division.

IV- ICZM PROJECTS in Algeria:

The implementation of the **ICZM** process depends in part on the provision of a suitable environment for the various actors and beneficiaries of the coast, especially as the integrated management approach is relatively new and requires the passage from sectorial vision towards the integration of administrative and management processes. In this context, Algeria has witnessed three main experiments:

1-AMIS SMAP III Project for the preparation of the ICZM Plan for Algiers :** The project aims at supporting national efforts in promoting sustainable development of coastal zones by implementing an ICZM pilot plan for the two municipalities of Réghaïa and Heraoua in the eastern part of Algiers(capital), that includes also the Ramsar site of Lac de Réghaïa.

The ICZM pilot plan takes into full consideration the inter-relationships between the activities performed in the stretch of the Algier's coast (e.g.

** The Short and Medium-term Environmental Action Program (SMAP) for Mediterranean countries aims to support the MPCs in their efforts to integrate environmental considerations into their policies. Its third and last phases (SMAP III), focuses on promoting the integrated management of Mediterranean coastal areas.

urbanization, industries, agriculture), the environmental processes (e.g. erosion), and their impact on natural ecosystems using several analysis methodologies (**T-ZERO Water and Environment Division website, (AMIS), 2006**):

- The Geographical Information Systems GIS as a valid support for data collection, standardization and integrated analysis.
- Interpretation of spatial information gathered from satellite images and aerial photos to identify human and natural features (e.g. geomorphology, urbanization and land use) and their evolution (since 1959).

One of the main goals of the project AMIS was the knowledge transfer and technical assistance to Algerian institutions involved in the ICZM process and policy. The project has been implemented by a group consisting of: - Italian Institute of Research CIRSA as a beneficiary. - Algerian Agency for the Protection of the Coast of the wilaya of Algiers (APPL) as a partner - Italian Ministry of Environment, Land and Maritime, as a partner (**MATE, 2015, p : 06**).

The key project activities included (**ALGERIAN COAST MANAGEMENT THROUGH INTEGRATION AND SUSTAINABILITY (AMIS), 2006**)

- ❖ Study of environmental impacts of the current plans to rural, urban and tourism development and proposing guidelines for developing a strategic document for territorial planning;
- ❖ Analysis of the demographic and socio-economic context of Algiers;
- ❖ Assessment of the existing regulatory policies and institutional framework for the adoption and the effective implementation of the ICZM.
- ❖ Implementation of a pilot project in the area focusing on the estimation of the water demand and quality of discharged wastewater and including development of a mathematical model of the Lake Reghaia water system to conduct a qualitative-quantitative assessment of the existing water resources and an estimate of soil erosion;

2-Coastal Management Program:

Coastal Management Program is the first official executive project for ICZM in Algeria. It is an innovative and complex practice aimed at preparing a road map for each coastal province (wilaya), encompassing all fields and sectors, based on integrated approach that requires the involvement of various actors and stakeholders in the coastal zone.

It is assumed to elaborate Coastal Management Programs for all coastal wilayas, starting with Algiers scheme, which was based on long extensive and in-depth researches of various sectors; followed by both Oran and Annaba schemes (**MATEV, 2013, p. 36**), and researchs are in place to complete remaining coastal wilayas schemes as soon as possible.

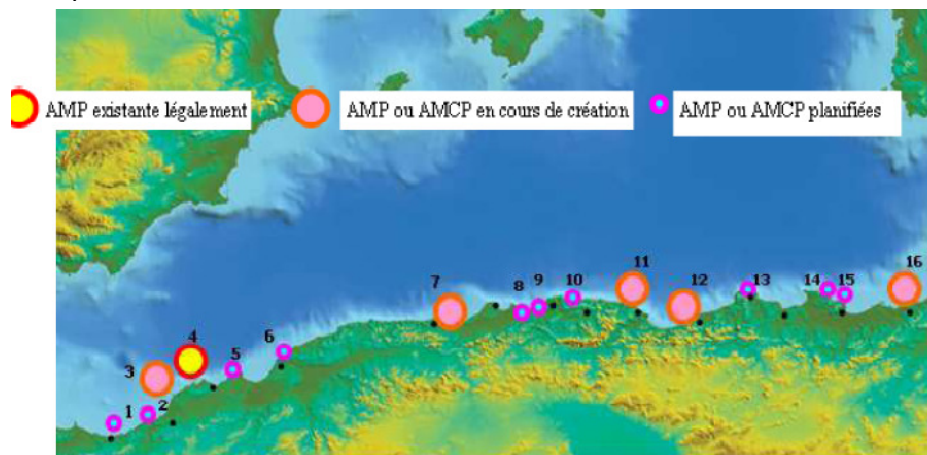
3- Support & development project of the National Coastal Conservancy :

The National Coastal Conservancy is an institutional tool that translates into reality the national policy of coastal protection and valuation. This project aims at building the National Coastal Conservancy experience in interdepartmental and interministerial practices, and cooperative management with relevant coastal stakeholders (**MATE, 2014, p. 22**).

4- Marine protected areas (MPAs) :

The **Marine protected areas (MPAs)** have been proposed as an efficient way to realize ICZM approach, and to protect and manage sustainably the spaces with a natural or cultural special value through measures that ensure biodiversity protection, strengthen management structures, operationalize the management of coastal sites priority, rationally exploit and ecologically the natural resource, put in work with the eco programs partnerships development and that enhance the touristic potential. In Algeria, this type of process is relatively recent as shown in the map below :

Figure N° (03) : Marine and Coastal protected areas, In the process of being set up or Planned



Source : MATE,2015.p.33.

The map above clarifies that there is only one existent MPA currently, 5 MPAs in progress of creation and 10 planned MPAs. According to the Ministry of Environment and Development of the Territory, the process of creating MPAs focuses on 7 major spaces : the Habibas Islands and the island of Rachgoun(ORAN) , the marine coastal parks of El Kala(EL TARF), Taza (JIJEL) and of Gouraya (BEJAIA), the natural area of Kouali-Chenoua (TIPAZA), the wetland of Reghaia (ALGIERS) (**MATE,2015.p.33**) . Therefore, the implementation of the National Action Plan for **MPAs** will be optimized by the networking of these sites in order to preserve the ecological connectivity of these sites .

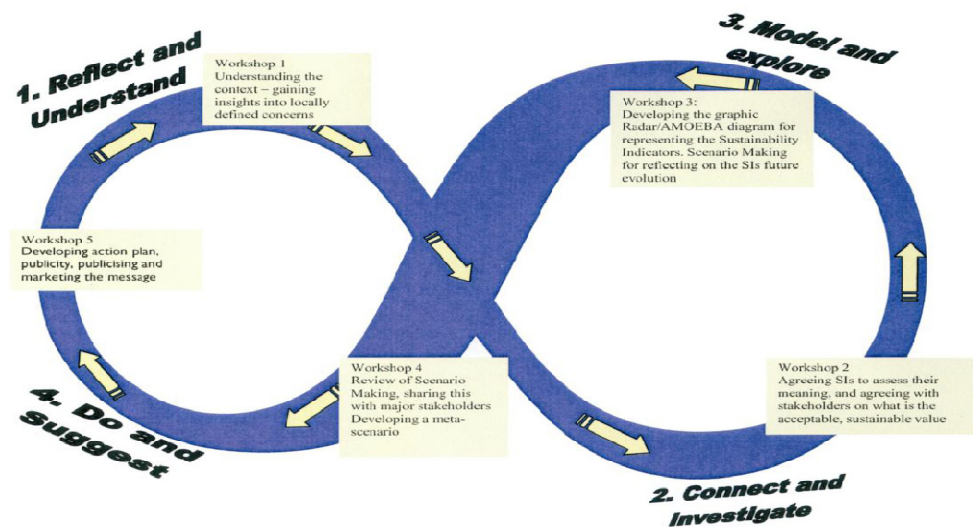
5- IMAGINE approach

The Imagine approach* has been implemented in Algeria at (2003-2004) by the “Algiers coastal area”, within ICZM projects under the Coastal Area

* The Imagine approach was specifically developed to ensure that the Blue Plan’s contribution to the sustainable management of the Mediterranean coastal zones under the CAMP proved optimal in terms both of the results achieved and their production, all within a restrictive institutional and financial context.

Management Programme (CAMP) supported by The Mediterranean Action Plan. This approach was implemented in four stages as show in the figure below :

Figure 04 : the imagine approach stages



Source : Larid M., 2005, P.71.

The **IMAGINE** approach's four stages are :

- 1) Reflect and understand. Reflecting upon and understanding the system;
- 2) Connect and investigate. Linking comprehension of the system to the sustainability indicators, studying them, establishing their band of equilibrium and portraying them using diagrams. In Algiers case, this stage reveals the zone's non-sustainability in 2003.
- 3) Model and explore. Modelling and exploring the future of the territorial system under consideration using the scenario method;
- 4) Do and suggest. Suggesting and acting by establishing an action plan for sustainable local development, including monitoring the territorial system's progress towards sustainable development using variations in indicator values compared with sustainability thresholds.

Conclusion

The Algerian Integrated coastal zones management strategy is still recent in terms of official theoretical content despite previous experiences and initiatives outside the framework of the strategy that have paved the way for it, as explained in this analytical study. Thus, it is difficult to judge how effectively it is implemented on the ground.

On the other hand, the contents and detailed formulation of the national ICZM strategy reflect the serious desire of the Algerian authorities to activate the developmental role of coastal zones.

The first phase shows the accuracy of analysis and diagnosis carried out in coastal zones and at all levels and fields, which resulted in a in an important database that includes opportunities, threats, strengths and weaknesses on which appropriate ways, methods, tools and programs are built.

The second phase, which is still currently under way, illustrates the potentials mobilized for developing the regulatory arsenal and the institutional network, disseminating governance and coordination methods, and adopting participatory approaches. It should be noted that this difficult phase requires strong political will, awareness-raising of society, a compilation of various financial, human, scientific and material resources, high quality programs and a long period of time.

Finally, if international standards are respected and the national ICZM strategy elements are well implemented on the ground, there will be effective and concrete results in the near future on the sustainable development of coastal zones.

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