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Foreword

It is my pleasure to present to you the National Progress Final Report & Work Plan for the integrated maritime policy project, which contains Background and Objectives, Current Situation in Maritime Sector, Institutional and Organizational Analysis, Consideration of IMP-MED national Vision Development, Maritime Governance & Maritime Development, IMP-MED Project Action Plan for Jordan and a detailed IMP-MED Project Action Plan Time Sheet (2015-2020).



This report providing a National IMP Work Plan that describes an outlook of the concrete integrated maritime policy targets for Jordan over the next five years till 2020, which will maintain the momentum of IMP development at the national level, and simply proposes to illustrate the current state of play and the future perspectives of the this process to allow Jordan to evaluate the strengths, weaknesses, opportunities, and threats involved in the development of an integrated approach to maritime affairs and focusing on what they plan to realistically achieve over the next few years.

Believing in its major role as a policy maker in the Jordanian Maritime Sector in specifying a concrete follow-up activities, projects, identifying national technical assistance needs, and determining the possible means of support to have the implementation of policies through application of the best international practices related to Integrated Maritime Sector aspects, to achieve its main goal in providing a Realistic expectations of specific progress in different maritime sectors that emphasis to the IMP dimensions, such as Transport, Tourism, Fisheries, MSP, ICZM, Sectorial maritime policies, Maritime legislation, blue growth, etc.

The Ministry of Transport also dedicated special attention to the necessity of Steps under consideration for the development of an integrated national vision of maritime affairs, in term of updating the sectorial maritime policies to be more integrated through publication of national policy document, development and implementation of IMP tools such as integrated maritime surveillance or monitoring, MSP, ICZM, Maritime laws, etc.

I have no doubt that under the Supervision of the European Commission and through the enthusiastic commitment of the DG-MARE, we will be able to move from the first stage of the IMP to a new level of ambition where our common vision, and action on maritime affairs will be reinforced and consolidated.

In conclusion, I would like to extend my sincere thanks to all who contributed in preparation of this report and all employees in the Maritime Sector and partners who have joined us in sharing information and Knowledge to achieve the desired goal of this report.

Minister of Transport

Dr. Lina Shabib

Preface

The Present Report Represents the Best Available Data, information, Plans and activities of the IMP-MED project. In this report we provide an overview of the substantial body and Maritime Governance and activities in term of tools and action that describes in detail the Current Situation and the outlook.



This overview provides a point of reference by which we will be able in the further development of the project to assess how anticipated changes in Integrated Maritime Policy and Governance affect directly on both National & Regional level of cooperation.

The report sets out key orientations for future developments along the most important tools and pillars of integrated maritime policy. to enhance the integrated maritime governance and cross-cutting policy tools, the implementation of maritime strategies, the marine sustainability, the development of the national, regional and international dimension of the IMP through.

In this way, This Report will highlight the mechanisms and tools that should be mobilised to achieve an integrated approach to governing maritime activities in Jordan. It is meant to complement the various sectorial actions that the EU promotes in the Mediterranean partner countries to reach the overall stronger co-operation in regional level, Since Jordan occupies a strategically important (but sensitive) position in regional relations.

Since IMP demonstrates the overall importance of maritime sectors for sustainable growth and employment. It has focused on political attention of coastal regions and maritime sectors, and it has facilitated innovation, new synergies and an increased coherence of action through transparency on sea-related policies, strengthened stakeholder involvement, networking, and the exchange of best practices.

Finally, Maritime Governance Vision Processes in Jordan designed to develop a national vision which could be adapted in the future, with a focus on giving higher priority and greater clarity to maritime issues. Since the **Governance** Consideration could be given to promoting a governance structure at the national level. On the other hand a number of institutional and operational integration and coordination mechanisms exist between them in parallel with the **International cooperation** There is an on-going need to improve ratification and implementation of international conventions.

IMP-MED National Coordinator
Head of IMP National Steering Committee
& National working-group
Engineer. Qais. T Qaqazeh

Introduction

1. Purpose of this document

The main purpose of this document is to provide a **National IMP Work Plan** that describes an outlook of the concrete integrated maritime policy targets for Jordan over the next years (the target of 2020 was proposed indicatively).

The objective of this initiative is to maintain the momentum of IMP development at the national level once the IMP-MED project is finished (i.e. after November 2014). The Work Plan simply proposes to illustrate the current state of play and the future perspectives of the process started in each Partner Country over the past 3 years of the IMP-MED project. This exercise will serve multiple purposes:

1. It will allow each south Mediterranean partner country to evaluate the strengths, weaknesses, opportunities, and threats involved in the development of an integrated approach to maritime affairs and focusing on what they plan to realistically achieve over the next few years (for instance over the period 2015-2020) in terms of IMP development.
2. It will help each partner country focus on what they plan to realistically achieve over the next few years (for instance over the period 2015-2020) in terms of IMP development and implementation (eg setting up national IMP governance schemes, promoting multi-sectorial dialogue frameworks at national level, supporting the establishment of maritime clusters, implementing cross-sectorial tools, etc), as well as of blue growth and jobs creation.
3. It will serve each partner country to specify concrete follow-up activities/ projects, identify national technical assistance needs, and determine the possible means of support (for instance use of instruments such as Twinning or TAIEX, UfM labelling for larger-scale projects, etc.).
4. It will allow the EC to understand where the countries are heading and what progress they intend to achieve over the next years, as well as to schedule its activities at regional and national level and allocate resources at initiatives of common interest for the partner countries.
5. National Work Plans could provide an important basis for the EC to ensure that financing is channelled in the appropriate way to future IMP challenges and blue economy opportunities in the region and to individual countries.

1.1. Definitions & Abbreviations

Keyword	Definitions	Keyword	Definitions
MoT	Ministry of Transport	IOC	International Oceanographic Commission
IMP-MED	Integrated Maritime Policy in Mediterranean	JREDS	Royal Marine Conservation Society of Jordan
ISPS	Implementing international Port Security Standards	PAP/RAC	The Priority Actions Programme Regional Activity Centre
REMPEC	Regional Marine Pollution Emergency Response Centre	INFO-RAC	The Regional Activity Centre for Information & Communication
ADC	Aqaba Development Corporation	NSC-IMP	National Steering Committee of IMP-MED
JMC	Jordanian Maritime Commission	TSS	Traffic Separation Scheme
UfM	Union for the Mediterranean	MSP	Maritime Spatial Planning
EIA	<u>Environmental Impact Assessment</u>	ICZM	<u>Integrated Coastal Zone Management</u>
IMO	International Maritime Organization	APMSCo	Aqaba Port Maritime Services Company
RJNF	<u>Royal Jordanian Navy Force</u>	ACT	<u>Aqaba Container Terminal</u>
UNEP	United Nations Environment Programme	ASEZA	Aqaba Special Economic Zone Authority
MSS	<u>Marine Science Station</u>	COMSTECH	<u>Committee on Scientific and Technological</u>
PERSGA	<u>Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden</u>		

2. Background and Objectives

2.1. Maritime Sector

Jordan is almost entirely land-locked and only has a small (27 km) marine coast to the Red Sea, centered on the port of Aqaba. There is no Mediterranean coast. Consequently, many maritime priorities are quite localized, and relate to development of the Aqaba region (e.g. through activities such as tourism, diving and protection of coral reefs). Nevertheless, some aspects of Jordanian maritime policy are relevant to the Mediterranean. The development of competitive port facilities in Aqaba is a key strategic issue for Jordan, and although the port is located in the Red Sea, Mediterranean ports are among the competitors for Aqaba for ships using the Suez canal. Similarly, there are synergies between the implementation of maritime transport rules (especially safety, pollution) in Jordan and Mediterranean maritime transport, and Jordan participates in a number of Mediterranean maritime processes.

2.2. Institutions

Maritime matters do not feature prominently in central government policies. This is partly due to the limited commercial significance of most maritime sectors in national terms, and partly because in practice responsibility for most maritime sectors is devolved to the Jordan Maritime Commission (JMC) and the Aqaba Special Economic Zone Authority (ASEZA).

Maritime laws in Jordan may be split into three categories: (1) coastal and other relevant legislation, within the framework of ASEZA; (2) specific maritime legislation (maritime transport regulations, adopted by the Jordan Maritime Commission); and (3) general legislation applying to the maritime sector (usually primary legislation, under the responsibility of central government, applying to maritime and non-maritime sectors). Not all maritime issues are covered fully by the legal framework, and (largely for historical reasons) some issues are dealt with at the national institutional level when they may be more effectively integrated within the ASEZA framework.

2.3. Organizations

There is no organization with overall responsibility for maritime policy at the national level, although ASEZA and JMC have de facto responsibility in relation to most matters. The JMC is an administratively autonomous authority, under the supervision of the MoT, with responsibility (broadly) for recommending and implementing policy and administration relating to all aspects of maritime transport (registration, safety, pollution, etc.).

ASEZA is a statutory institution empowered with regulatory, administrative, fiscal and economic responsibilities to improve the quality of life for all community members; create, regulate and sustain a globally competitive investor-friendly environment; optimize the efficient use of entrusted marine natural resources in harmony with the Master Plan to; ASEZA has competence over a range of coastal and marine matters and has in practice adopted laws and policies applicable to coastal and marine space.

2.4. International Cooperation

As it is not a Mediterranean coastal State, Jordan does not generally participate in Mediterranean regional agreements, although it does participate in the Memorandum of Understanding on Port State Control in the Mediterranean Region and (usually on an ad hoc basis, as observer or at the technical level) in some regional

organizations/processes, such as REMPEC and UfM. Jordan has ratified most of the principal maritime agreements, although there are some gaps.

Jordan occupies a strategically important (but sensitive) position in regional relations, having signed a peace treaty with Israel in 1994. The peace treaty has also enable Israel and Jordan to enjoy a reasonable level of cooperation in the Gulf of Aqaba, including in relation to a range of environmental issues (planning, EIA, emergency response), marine research and the establishment of the Red Sea Marine Peace Park which promotes collaboration between the countries to protect trans boundary coral reefs and tourism. Also, Jordan claims a territorial sea of 3 mile and has signed maritime boundary agreements with Israel and Saudi Arabia (but not Egypt, with which it also shares its maritime boundary).

2.5. Integrated Maritime Governance

At the central level, there is no overall governance framework for maritime matters, nor any general maritime policy. At the ASEZA level, there is reasonable coordination between ASEZA and JMC. Inter-institutional procedures exist for some matters but difficulties are occasionally encountered in carrying out agreed integrated procedures. Coordination is less extensive in other areas. Environment and tourism are accorded a relatively high priority in regional planning but there is little integration with many other sectors (e.g. fisheries).

2.6. Policies

Jordan is progressing its tools to have a national maritime policy, But ASEZA has adopted a number of policies associated with the regulation, management, and protection of the natural environment among which are the Environmental Policy, the Marine Protection Policy, the Groundwater Management Policy, the Wastewater Management Policy, the Water Conservation Policy, and the Energy Conservation Policy. More recently adopted a comprehensive National Programme of Action for the Protection of the Marine Environment from Land-Based Activities.

In addition, ASEZA adopted in 2001 the Master Plan and Land-use Plan. They were designed to guide the development in the area until the year 2020. The Plans are comprised of development of a protected area for corals, a reduction of phosphate dust emissions, reduction of ship discharges, and measures on drainage, sedimentation and fishing.

2.7. Integrated instruments and tools

2.7.1. National maritime vision

Jordan now is developing tolls to have national maritime vision, nor a specific maritime vision within ASEZA policy (rather, there is a formulation of coastal / marine aspects in relation to general ASEZA policy).

2.7.2. Integrated operational instruments and tools

As regards the Aqaba region, Jordan is well-placed to embrace IMP. Mechanisms for coordination exist between the relevant departments of ASEZA internally and between ASEZA and the JMC. (They exist to a lesser extent, however, with other government ministries). Within the Aqaba zone, coastal (land) use plans exist, and ASEZA is currently in the process of considering the development of a coastal / marine spatial plan. Some marine reserves already exist, in order to protect coral reefs. Several policy documents and strategies are in existence (e.g. National Programme of Action for the Protection of the Marine Environment from Land-Based Activities).

2.8. Following up an continuing Requested technical assistance and needs

No formal requests for technical assistance have been made, although there is strong interest in participating in the project. Interest was expressed during the first country visit in improving inter-institutional implementation processes (ASEZA, JMC, others) and in examining the potential for MSP further in which The main opportunities in Jordan come from the existing planning framework in ASEZA. Technical assistance in areas under ASEZA jurisdiction would need to be coherent with this.

2.9. Proposing a new technical assistance aspects to cover the coming 5 years from 2015-2020 of the followings:

1. Anchorage Areas management.
2. Maritime Spatial Planning (MSP) & Integrated Coastal Zone Management (ICZM).
3. Building Marine Knowledge.
4. Integrated surveillance for a safer and secure maritime space.

2.10. SWOT analysis

Recommendations for technical assistance.

Given the localized position of Jordanian maritime policy and administration, and the institutional framework applicable to it, it is recommended that the focus of technical assistance be applied to local issues rather than national issues. For example, technical assistance could be directed to developing greater and more strategic prioritization and integration of the coastal and marine vision and strategies with ASEZA planning processes, rather than developing a national vision (which would be difficult to implant in the ASEZA institutional framework, which is based around a Master Plan applicable to 2020). Concerning more “international issues” (e.g. maritime transport), the focus should be on issues relevant to the Mediterranean context.

Vision Processes designed to develop a national vision could be adapted to the ASEZA level, with a focus on giving higher priority and greater clarity to maritime issues.

Governance Consideration could be given to promoting a governance structure at the national level (which would include the full participation of ASEZA). Assistance could also be directed to improving existing governance structures at the ASEZA level.

Improving policy/administration A number of institutional and operational integration/coordination mechanisms exist between ASEZA and JMC, but their implementation could be improved. Interest was expressed during the inception phase in developing more detailed implementation plans. There is scope for examining closer integration between ASEZA and other sectors (e.g. fisheries, underwater cultural heritage). There is also some scope to improve the legal framework, but this is unlikely to be a priority. Administrative and operational approaches to improving enforcement could be considered.

International cooperation There is an on-going need to improve ratification and implementation of international conventions. No particular priorities have yet been expressed, but the 1978 Protocol to the Convention on Safety at Sea and the 1992

Protocol to the Fund Convention (as instruments that have so far received a broad participation at the world level) might be considered priorities.

IMP tools, measures Jordan is interested (and has already commenced a study on) developing MSP, TSS, Environmental and governance in the Aqaba region, and further assistance could be applied to this.

3. Current Situation in Maritime Sector

- Jordan is almost entirely land-locked and only has a small (27 km) marine coast to the Red Sea, centred on the port of Aqaba. All marine landings in Jordan are made into this port.



3.1. Major maritime issues

- Development of both an attractive and competitive shipping registry and port facilities in Aqaba are key strategic issues for Jordan. Although located in the Red Sea, Mediterranean ports are among the competitors for Aqaba for ships using the Suez Canal.
- Improvement of implementation of maritime transport rules (especially safety, pollution) is also a priority.
- In the Aqaba development area, tourism, diving and protection of coral reefs are among the priorities. There is interest in maritime spatial planning (and land/coastal use plans have already been developed).

3.2. Maritime activities

3.2.1 Maritime transport and ports

- Jordan has one port, Al Aqaba, located on the Gulf of Aqaba.
- It operates facilities to accommodate both passenger and cargo traffic (general cargo, containerized cargo and specialized cargo, including liquid and solid chemicals and fertilizers as well as Ro-Ro vessels).

3.2.1.1 Merchant marine

- Jordan has 30 registered ships with 125,519 GT and, the number of the registered seafarers is 612 as officer and 458 as seaman.
- The attraction of new vessels to the Jordanian registry is a key priority for the maritime sector.

3.2.1.2 Pollution by maritime transport

- The volume of traffic entering the Gulf of Aqaba is substantial and the limited of a national capacity to contain of 200 tonnes oil spills and control any significant accidental spills of oil is a major concern.
- Other environmental issues relate to marine pollution resulting from frequent small spills of oil and other contaminants. Recurrent spills around the ports are already associated with the degraded health of local reef ecosystems.
- In addition, waters are polluted by garbage and animal carcasses thrown overboard by ferries and ships. Reefs are also destroyed by ships that accidentally miss the navigational waterway through the Strait of Tiran.

3.2.1.3 Safety, risks

- Jordan is a member state of the IMO and is a party of most international maritime conventions in reference of safety, security & environmental issues. The Jordanian Maritime Commission aims to detect any deficiencies in vessels which pose a threat to safety. It is a member of the Basel Convention which prohibits hazardous waste to be transported through Jordan. However in the event of such an accident there bylaws and contingency plans in place, since JMC, ASEZA and RJNF are the regulatory parties to implement and enforce these conventions.

3.2.2 Fishing

- A small amount of fishing takes place in the Gulf of Aqaba because of the deep water and limited area of the Gulf (27 km). Most of the fishing is artisanal with very small numbers of fishers and small boats. There are no major storage or processing facilities available and so most of the catch is consumed or sold fresh in the markets.
- There is no specific fisheries policy. The main objective of Jordan's fishery policy is to protect the marine environment of the Red Sea area (particularly the coral reef areas), which is an important component of Jordan's tourist industry. This overall marine protection policy includes ensuring the sustainable productivity of local fish stocks, both commercial and non-commercial.

3.2.3 Anchorage Area

- Aqaba Port has only 6 anchorage places located at the North coast. With the expansion of the resorts in the anchorage area become in the middle of the water sports activities.
- Therefore , in order to have safe anchorage to the visiting ship's who are not having ready berths , we would like to reduce the turning circles and avoid dragging anchors , we suggest to establish a new anchor dolphins to be located at the northern area.

3.2.4 Oil and gas

- Jordan has few resources of oil and gas and is almost wholly reliant on imported fossil fuels. Currently about 96% of the country's energy is imported. Also a new energy port will be operated in 2015 with commission to the new southern port of Aqaba.

3.2.5 Energy / renewable energy

- Renewable energy plans are being developed in Jordan, but these do not appear to include any plans for coastal / marine developments.

3.2.6 Marine and coastal cultural heritage

- Aqaba's history dates back to the 4th millennium BC. A number of important coastal sites have been discovered. However, so far no submerged heritage site been detected in Jordan, since no excavations or surveys have been conducted.
- Future steps have been identified as: improving regulation and authorization of activities directed at underwater cultural heritage; formation of a national committee to be in charge of the future steps; training of a national team of archaeologists on diving and the underwater survey; a full survey (field and references) should be carried out to locate the Underwater Cultural Heritage; and a

public awareness programme should be implemented concerning the value and significance of underwater cultural heritage.

3.2.7 Tourism

- Tourism in Jordan is a rapidly expanding industry. Currently, approximately 66% of Jordan's tourists visit Aqaba (about 600,000 tourists a year).
- Coastal and marine activities, most notably diving, are a significant part of the Aqaba tourism sector. However, these are known to have significant impacts on the coastal environment. (UNEP reports that uncontrolled tourist activities such as damage to corals by anchors, tourist boats, and coral breakage by divers have resulted in significant damage and destruction of key habitats of the Gulf).

▪ Tourism Activities in Aqaba

- 1- Swimming ,snorkelling ,wind surfing , underwater photography ,skiing and other water sports.
- 2- Diving : there are about seventeen Diving Centre s in Aqaba which provide diving services for thousands of divers visiting Aqaba for this purpose.
- 3- There are more than 120 glass- bottom boats which provide sea trips for tourists and visitors.
- 4- Around 100 cruise ship visit the port of Aqaba annually with thousands of tourists.
- 5- Different marine transport companies which provide transport of tourists between Aqaba and the Egyptian side.
- 6- A new cruise ship terminal is planned to be in Al – Marsa project.
- 7- Three mega tourism projects under execution and all are environmentally approved in addition to that 50% of investments in Aqaba is going to be in the tourism sector.

- The Aqaba Tourism Department – Ministry of Tourism missions as far as water activities are concerned:
 - ✓ Participation in Environmental Assessment Activities for projects in Aqaba and evaluation of its impact on the sea and underwater heritage.
 - ✓ orientation of local community concerning the value of our underwater heritage and its protection.
 - ✓ Participating in granting the Blue flag and the Green Key for Hotels in Aqaba.
 - ✓ Conducting cleaning campaigns of the shores of Aqaba and participating with other parties in such activities.
 - ✓ Raising awareness among schools students concerning the protection of the coral reef in Aqaba which is the second of its kind in the world.

3.2.8 Maritime culture

- No marine culture takes place and there are no plans to develop enterprises due to lack of space and concerns about environmental impacts and, in any case, technical constraints due to local geographic conditions.

3.3. Maritime surveillance & monitoring

3.3.1. Surveillance

- Jordan has a small naval force (the Royal Naval Force), which is organizationally part of the Army, and consists of less than 20 patrol boats. It acts as the coastguard in the Gulf of Aqaba.

3.3.2. Monitoring

- The Jordan Maritime Commission has the responsibility for controlling and monitoring all maritime activities in Jordan, and undertakes inspections (over 400 per year) in Aqaba port in accordance with the Mediterranean MOU.

3.4. VTS in Aqaba



Marine Services

- Vessel Traffic Service (VTS) is defined as a service implemented by a competent authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment. The Service should have the capability to interact with the traffic and respond to traffic situations developing in the VTS area.
- Communications may be effected verbally, electronically or visually.
- When communicating with vessels the main language of communication should be in English. Internal communications may be made in the National language.

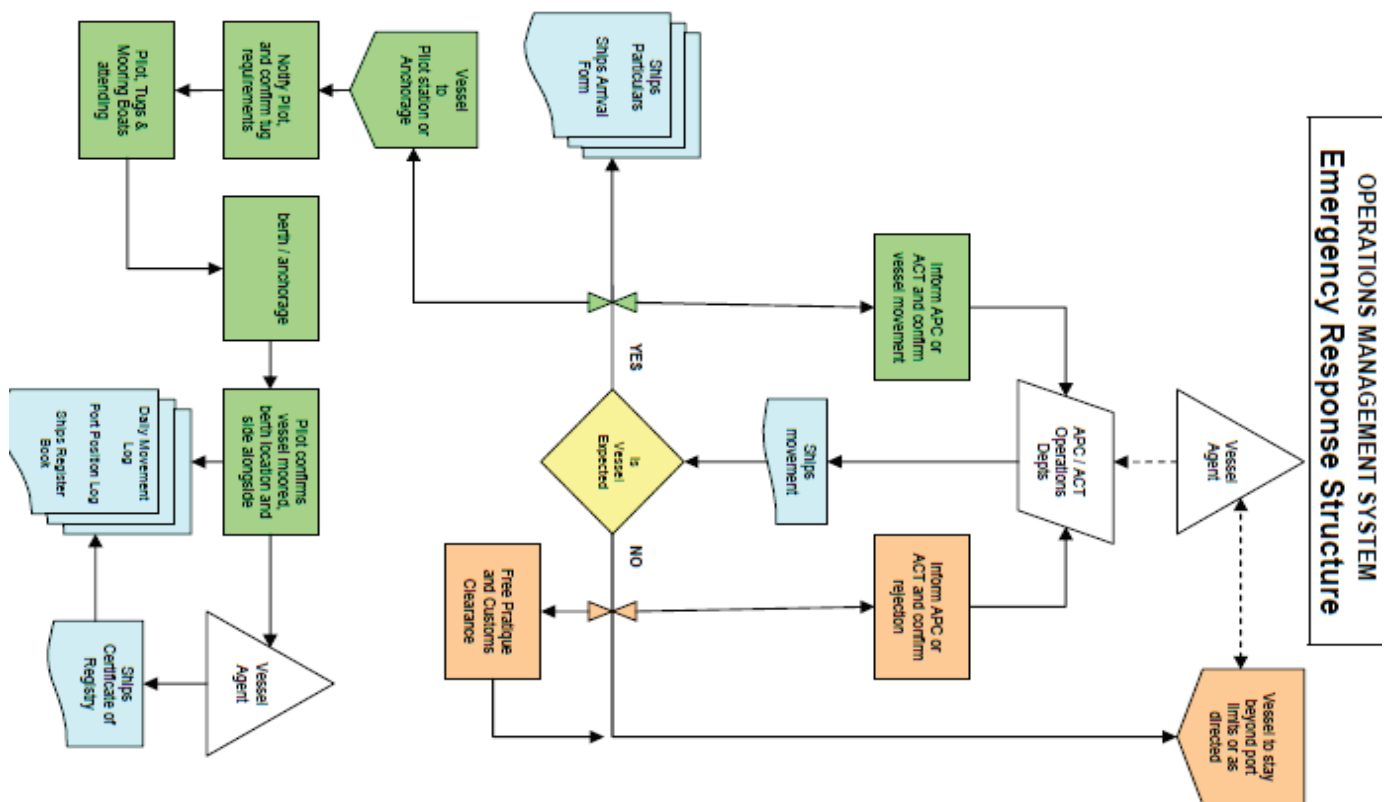
VTS Coordinator Duties:-

1. Port coordination for marine operational radio traffic
2. Monitor/advise vessels / terminals on meteorological & hydrological situation
3. Monitor/advise on safe traffic navigation within the Port and its approaches
4. Advise vessels on movement to terminals / berths / anchorage
5. Interact with JRN / Coastguard on APMSCO fleet positioning within port.
6. Use contingency plans - Internal (APMSCO) , External (JMA)
7. Maintain a safe waterway throughout emergency situations

8. Respond effectively to internal emergencies within the VTS Centre
 9. Provide an Information Service
 10. Provide Navigational Assistance Service
 11. Provide Traffic Organisation Service
- VTS Coordinator Officers are at liberty to conduct communications between the VTS Centre / Control Tower and: Other VTS personnel in the VTS Centre or other VTS Centre 's.
 - Masters and/or watch keeping officers on participating vessels.
 - Pilots on participating vessels.
 - Allied services.
 - Port services.
 - Other stakeholders.
 - Monitor The Present And Forecast Meteorological And Hydrological Conditions
 - Maintain And Update Vessel Traffic Image
 - Respond To Emergency Situations
 - Use contingency plans - Internal (APMSCO) , External (JMA)
 - Maintain a safe waterway throughout emergency situations
 - Respond effectively to internal emergencies within the VTS Centre
 - Provide an Information Service
 - Provide Navigational Assistance Service
 - Provide Traffic Organisation Service

Prior to accepting the VTS watch, the oncoming Coordinator Officer must determine if all the equipment, resources and aids are operating correctly and determine the status of any faults found by previous watches. Such equipment covered by this paragraph is, but not limited to:

- VHF Transceivers, main units and walkie talkies.
- Intercoms.
- Telephone.
- E-mail.
- DSC.
- AIS.
- RADARS inc displays.
- Recording systems / computers.
- Operational manuals.
- Defective or non performing equipment should be noted in the VTS Log and formal notification made to Technical Department by VTS/supervisor and Marine Manager via a Defect Report. Next watch should be formerly advised to status of all equipment.



3.5. Marine environment

3.5.1. Biodiversity

- The coral reef ecosystems in the Gulf of Aqaba are the most prominent feature of the marine environment in Jordan. The reefs are unique in that they are the northern-most tropical reef system worldwide, have a high density of marine taxa and provide habitat for rare and endemic marine species.
- Data is scarce on other biodiversity (resources or impacts on it) and there is little in the way of systematic research.

3.5.2. Water quality

- Water quality is a considerable problem for Jordan. With shifting population patterns, lack of infrastructure and a fragmented approach to managing water issues, Jordan is struggling to cope with the emerging needs. Recently there has been a rapid decline in the deterioration of the groundwater quality and an increase in the salinity levels.

3.5.3. Marine protected areas

- Aqaba currently has a marine protected area as such ASEZA Master Plan includes several zones and reserves for the protection of Aqaba's cultural, archaeological, historical and natural heritage and diversity., the Areas (marine and terrestrial) include: five environmental zones, coral reserves, archaeological reserves, natural area reserves and a Beach Protection Zone.

3.5.4. The Aqaba Marine Park

3.5.4.1 History

The rapid developments in the economic activities and increasing the population in Aqaba place increasing pressure on the rich, but limited, coastal resources of the Jordanian portion of the Gulf of Aqaba. This has led the government of Jordan, through the Aqaba Special Economic Zone Authority, to undertake the management of the Aqaba Marine Park as a matter of urgency.

3.5.4.2 Park Objectives:

The protected area of the Aqaba Marine Park was created to “conserve and manage the natural near-shore marine environment of the Aqaba south coast region with its rich biodiversity, while allowing for certain touristic uses at sustainable levels, for the benefit and enjoyment of the present and future generations of Jordanians and the global community.”

3.5.4.3 Tasks:

1. To provide first aid and rescue to injured persons.
2. To generate public awareness of park regulations to protect the natural environment.
3. To patrol the park and to enforce park regulations.
4. To maintain park facilities and ensure their proper use by visitors.
5. To conduct field surveys and studies.
6. To maintain park facilities and equipment.
7. To ensure the cleanliness of the beaches and water.
8. To issue citations for violations of park regulations and to file legal charges against perpetrators.
9. The installation and maintenance of park boundary markers.
10. The management of a public outreach and education campaign to generate awareness about the marine environment.

3.5.4.4 Location:

The Aqaba Marine Park is located south of the city of Aqaba. The park is about 7 km in length, stretching from the Passenger Terminal in the North to the Police Officers’ Club in the South. The park’s terrestrial boundary lies 50 m East of the Mean High Water Mark and the marine boundary lies 350m West of the Mean High Water Mark.



3.5.4.5 Park Zonation:

1. A Strict Reserve Zone:

The objective is to preserve a marine community in its natural state by eliminating or reducing as much as possible anthropogenic impacts on the area. These areas are to be used as benchmarks for non-manipulative and non-extractive scientific research to gauge human impacts on the marine ecosystem to promote sustainable management of the existing marine resources. All and any activities without a written permit from the Marine Park authority are prohibited, except through passage.

2. Beach Recreation and Swimming Zone:

The objective is to allow for safe beach recreation. Permitted activities include swimming, snorkelling, wading, and diving provided that proper access points are demarcated. Prohibited activities in these areas include general boating (with the exception of dive boats which may moor on designated mooring buoys), jet skiing, water-skiing, fishing and anchoring.

3. Diving and Snorkelling Zones:

The objective is to permit safe diving and snorkelling with the purpose of observing, studying or photographing marine life. Access to dive sites is restricted to demarcated shore entry points and to predetermined mooring points for boat access. Dive sites may be subject to periodic closure to give sites a chance to recover from diver impacts. Prohibited activities within this zone include jet-skiing, water skiing, fishing, anchoring, and boating in the vicinity of a 'diver-down' flag.

4. Beach Zone:

The beach zone encompasses the terrestrial territory of the AMP and is demarcated by 40 cm high natural stone markers 50 m east of the MHW mark. All activities within this area are controlled by the park management and special permits have to be secured from the park management for any activities other than simple beach use by individuals.

3.5.4.6 Park Fees and Sustainability:

One of the most prominent challenges faced by the park in its quest for sustainability and independence, is the need to become financially self-reliant.

The Aqaba Marine Park by-law No. 22 of 2001 gave the park the legal authority to charge entry fees and service fees against services provided by the park in a first step towards the park's financial and administrative independence and sustainability. The park generates revenues through fees, fines, leases, donations and grants.

3.5.5. Prince Hamzah Oil Spill & pollution combat Centre

- ✓ The Centre was established on 13/6/1996.
- ✓ The Centre participated in the international workshop entitled “preventing maritime accidents and emergency preparedness” in Tokyo in 1993 based on the decisions of the elves in the bilateral peace talks multilateral.
- ✓ Due to the growing interest assuming by the Ports Corporation to protect the marine environment in the Gulf of Aqaba in general and Jordanian territorial waters in particular.
- ✓ The Centre Has been the established to combat pollution in cooperation with the Japanese government under a grant of 5.5 million dollars in 1995.
- ✓ That was under the Memorandum of Understanding between the Jordanian government and the Japanese government was signed in Amman on 29 \ 09 \ 1995.
- ✓ equipment Has been supplying to the Centre under this note from the following countries (UK, Germany, Sweden, United States, Japan and Norway).
- ✓ In addition to the existing equipment at the Ports Corporation and other equipment has been purchased from the institution's budget. also the other spare parts and other needed equipment are bought to the centre annually.

3.5.5.1 Duties of Centre :

- 1) pollution control in the territorial waters and maintain clean waters of the Gulf of Aqaba.
- 2) cooperation with the Centre s for pollution in surrounding states to maintain the cleanliness of the Gulf of Aqaba.

3.5.5.2 The capacity of the Centre :

- ☒ The Centre can deal with incidents of oil pollution to 200 tons, which works at the second level.
- ☒ The Centre includes the following equipment:
 - 1) First: Equipment of oils trapping to prevent its spread.
 - ✓ barriers oils trapping (inflatable and fixed barriers).
 - ✓ sorbents Oils.
 - 2) Second: re-collection and containment oils equipment (such as planers, helical cylindrical oil and hydraulic submersible pumps).
 - 3) Third: Delivery and storage Equipment (processing emulsified oils unit, Bladder ,Trailed floating tanks).
 - 4) Fourth: transport, publishing and storage equipment:
 - Boat Hamza 1& Boat Hamza 2 :British Manufactured which prepared to deploy rubber barriers and to transfer the equipment to the site of pollution, As well as to receive the oils collected. It is also equipped for the purpose of fire extinguishing. In addition it has a quickly navigational and it is equipped with Hydraulic lifter.

- rescue boat 1: which is a Weber fast boat dedicated to the rescue and surveillance missions with a Length of 8.2 meters and a Speed of 54 knots.
- inflatable boat: which is used to transfer the diffusion barriers for the beaches protection.
- trucks: Used for the transfer of pollution control equipment which are equipped with various barriers, rubber, absorbent barriers, barriers, planer, cylindrical tanks, rubber, carpets, absorbent materials for oils and forces units to protect beaches.
- oil transport tankers: which are equipped to transport collected oils from place of assembly to place of processing with a capacity of 13 cubic meters.
- forklifts for handling the Centre equipment.

5) Fifth: Lighting Equipment consists of:

- 1) Tow luminescent sodium lighting units with moving ability of 1200 watts.
- 2) Three capacity Generator of 220 volts and 4 kilowatt.

3.5.6. Climate change, natural risks

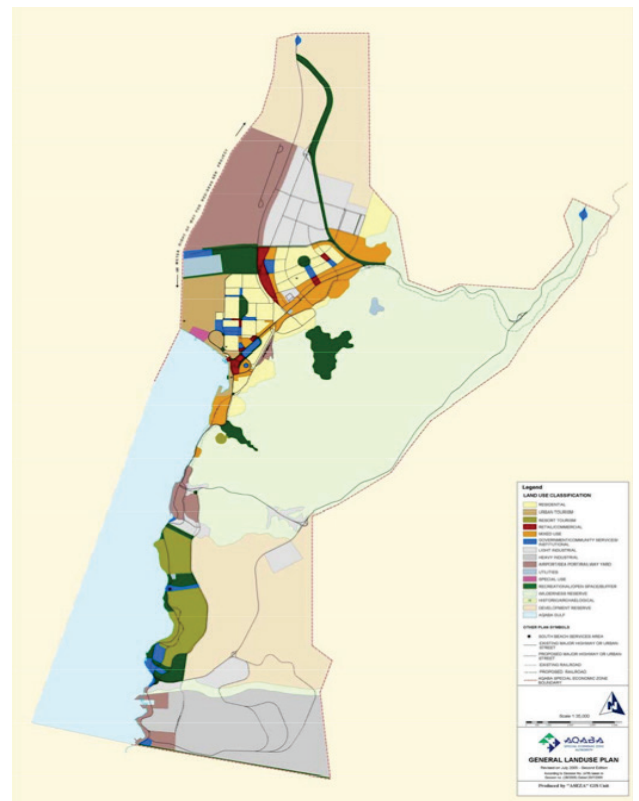
- Jordan will be affected by climate change through increased temperatures and decreased precipitation. However despite this, and the country's problem with water scarcity, the issue of climate change has not been a priority issue.

3.5.7. Marine litter

- Marine litter currently presents a major problem along the Jordanian coastline. Solid waste is a particular problem. The beaches and near shore reef and sea grass areas of Jordan's Gulf of Aqaba are heavily polluted by discarded plastic and other refuse materials.

3.6. Research and knowledge

- The Marine Science Station (MSS) (a marine science research facility designed for scientists and post graduate students studying the tropical-subtropical marine ecosystem).
- COMSTECH, Organization of Islamic Conference Standing Committee on Scientific & Technological Cooperation (Inter- Islamic Science & Technology Network on Oceanography). (which aims to play the catalyser role to foster closer cooperation among the Islamic countries in the field of development and management of marine resources).



3.7. Coastal zones

- Coastal management and planning is relatively advanced in the Aqaba region. Although closely linked to land activities, the area is defined in several zones, some of which relate to marine areas (e.g. the plan included a Marine Park, which has legislative standing).
- In 2001, ASEZA adopted the Master Plan and Land-use Plan. They were designed to guide the development in the area until the year 2020. The Plans are comprised of development of a protected area for corals, a reduction of phosphate dust emissions, reduction of ship discharges, and measures on drainage, sedimentation and fishing.
- Moreover, ASEZA has adopted a number of policies associated with the regulation, management, and protection of the natural environment among which are the Environmental Policy, the Marine Protection Policy, the Groundwater Management Policy, the Wastewater Management Policy, the Water Conservation Policy, and the Energy Conservation Policy. The formulation of these policies is important for ASEZA to show that they care and use them when they have emergency situations.

3.7.1. Strategy Analysis & Approach

- As Jordan's only maritime access point, Aqaba has great strategic importance resulting in the need to accommodate INDUSTRY, TRADE, TOURISM AND ENVIRONMENTAL CONSERVATION in a very geographically restricted area.
- Jordan has recognized this special status including the need for some form of integrated management.
- Also, ASEZA realized that unless careful environmental management and planning are instituted, severe conflicts over coastal space and resource utilization are likely, and the degradation of natural resources will close development options.

3.7.2. Planning Approach:

- Dealing with the entire coastal zone and its full range of resources in a comprehensive manner.
- Finding the best possible compromise between the different interests and to achieve the balance in the overall use of the countries coastal line.
- Minimizing conflicts and provide optimal sustainable resources use.
- Harmonizing coastal activities in such a way that all of them are consistent with and support a broader set of overarching national goals for the Jordanian coast.

3.7.3. Development Strategies:

Development objectives for the ASEZ Master Plan are derived from the followings:

- **An analysis of existing conditions, development issues, and proposed projects:-**
 1. Land use relationships.
 2. Roads and utilities.
 3. Natural features.
 4. Views and landmarks.
 5. Topography.
- A review of previous master plans.
- Strategy workshops and focus groups discussions.

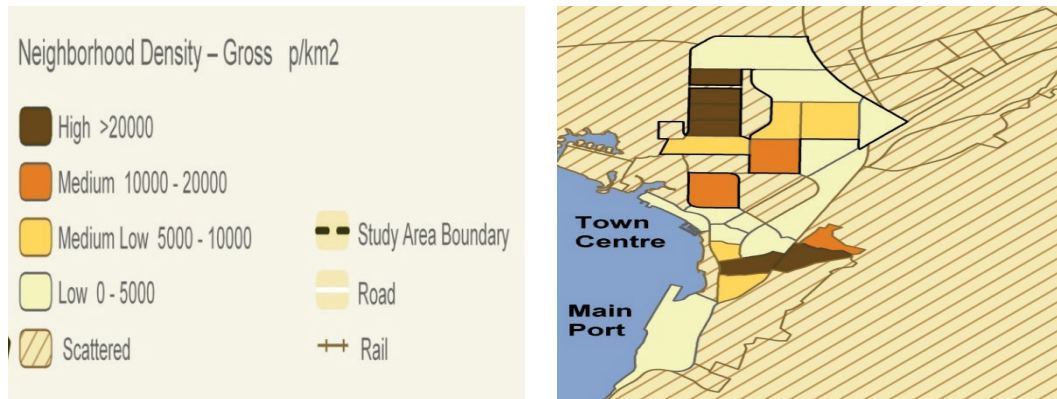
- **ASEZ Master Plan Goals**
 - Improve economic and social well-being in Jordan.
 - Encourage new business.
 - Improve the effectiveness of the Port of Aqaba.
 - Encourage environmental, historical and recreational tourism.
 - Protect unique environmental, historical and cultural resources.
 - Provide opportunities for resort and residential areas along the South Coast.
 - Upgrade the image of Aqaba as an attractive place to visit, work and live.

3.7.4. Coastal Land-Use Designations:

Item	Land Use Category	Length Percent (%)	
1	Port/ Airport & Transportation Facility	31.1	
2	Urban Tourism	15	29.7
3	Resort Tourism	14.7	
4	Buffer, Open Space, Recreational	11.8	
5	Government, Community Services, Institutional	8.9	
6	Mixed Use	6.8	
7	Wilderness Reserve	6	
8	Special Uses	3.7	
9	Historical/ Archaeological	0.94	
10	Commercial/Retail	0.5	



3.7.4.1 Aqaba Town Residential Area Population Density



3.7.4.2 Environmental Protection Policies

- Enhance protection of the three Coral Reef Reserves.
- Establish 50 meter beach setback zone and 50 meter beach landscape zone.
- Establish buffers for archaeological and historic/cultural sites.
- Use railway extension and upper coast road to establish drainage retention basins in Coastal Zone.
- Preserve natural, cultural and historical sites that attract tourism.
- Maintain continuous public beach access with a beach protection zone.
- Maintain a visual buffer between the Coastal Zone and the Southern Industrial Zone.

AYAL OASIS



SARAYA AQABA



3.7.4.3 New Coastal Zone Development

1. Provide pedestrian and bike trail along beach from Marine Sciences Centre to Royal Diving Club.
2. Locate resort residential sites above the Coast Highway.

4. A draft water use plan copy has been prepared by an international consultant and submitted to ASEZA for review.
5. the official copy of the water-use plan is still not adopted now.

3.7.5.2 3.7.5.2 Perceived current purpose and need for coastal and marine spatial planning (e.g., user conflicts or new proposed activity):

1. An on-going pressure to privately owned lands for resort and hotel development.
2. Limited public beaches & access.
3. Concerns regarding over-developing the coastal zone (concentration of people and activities).
4. Providing residents and state visitors with sufficient access to natural resources is, therefore, quite challenging.
5. Populations: Increase in population /local & visitors.
6. The official copy of the water-use plan is still not adopted now.
7. Balance between economically feasible development and adequate marine environment protection.
8. The overloading of the coastal zone with industrial and tourism activities.
9. Lack of developed public beaches and all necessary infrastructures, services, demarcation, and a good signage system.

3.7.6. Future Challenges & Constraints

1. An on-going pressure to privately owned lands for resort and hotel development.
2. limited public beaches & access.
3. Concerns regarding over-developing the coastal zone (concentration of people and activities).
4. Providing residents and state visitors with sufficient access to natural resources is, therefore, quite challenging.
5. Populations.

3.7.7. Improvements & Recommendations

1. Strengthen public awareness and education programs by involving the communities and stakeholders at all levels.
2. Conduct an assessment of the carrying capacity for the entire coastal zone to maintain the balance between economically feasible development and adequate marine environment protection.
3. limit and prevent overloading the coastal zone with industrial and tourism activities.
4. Upgrade and develop public beaches and provide all necessary infrastructure, services, demarcation, and a good signage system.
5. Continue to improve the environmental monitoring programs as it has and at the same time initiate regional monitoring programs for the gulf of Aqaba.

3.8. Monitoring of the Jordanian Coast of the Gulf of Aqaba & Red Sea

- ✓ Until mid-1960s the Gulf of Aqaba had been a relatively isolated area with very little activity.
- ✓ During the last five decades, development along the coasts has increased significantly, resulting in adverse effects on the natural coastal components.
- ✓ This enforce decision makers to take all the necessary steps to control all of these coastal components
- ✓ 1993: Monitoring Program with a cooperation between Aqaba Region Authority and the World Bank. This consider the environmental protection of the Gulf of Aqaba and monitor its environmental quality including air, marine water and ground water quality.
- ✓ 1996: A cooperation between Aqaba Region Authority and the Global Environmental Facility (GEF). The main objective was to enable Jordan to take the lead in establishing and applying a regional collaborative framework for sustainable management of the Gulf of Aqaba and the conservation of its coral reefs.
- ✓ 1999: A cooperation between Aqaba Region Authority and the Marine Science Station funded by GEF Complete monitoring program
- ✓ 2000-2002: A cooperation between Aqaba Special Economic Zone Authority (ASEZA) and the Marine Science Station funded by USAID. Complete monitoring program
- ✓ 2003-2012: A cooperation between Aqaba Special Economic Zone Authority (ASEZA) and the Marine Science Station funded by ASEZA. Complete monitoring program of sea water and Benthic Community.

3.8.1. 3.7.1 Aim and objectives

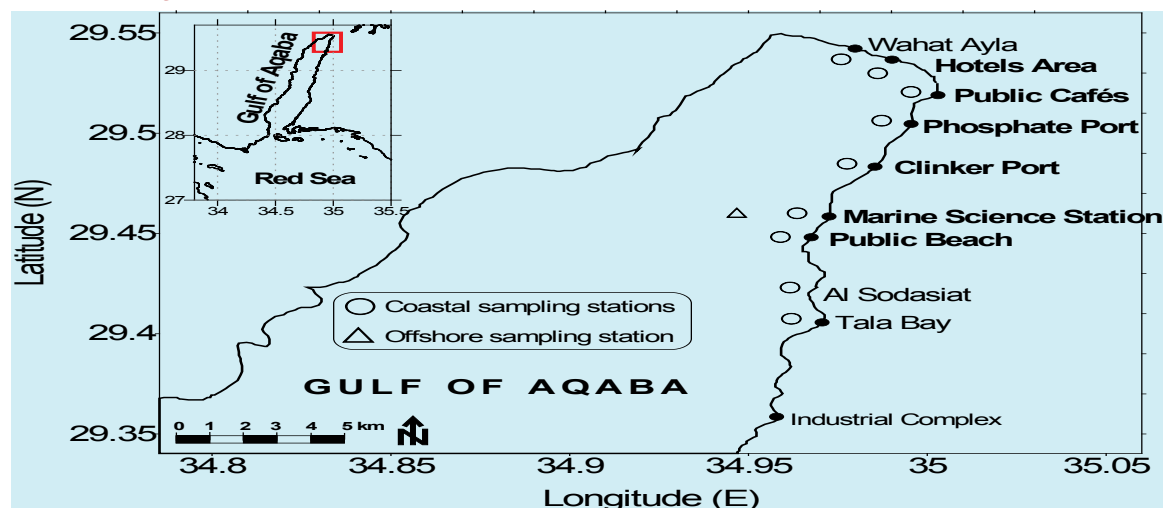
- ✓ The aim of the monitoring program is to provide resource managers with necessary baseline data that help them to understand coastal system functioning and enable them to adopt suitable management schemes.
- ✓ The main objectives of the monitoring program are:
 1. produce regular records of the seawater physical properties; transparency, colour and odour, temperature, salinity and currents.
 2. produce regular records of the seawater chemical and biological properties; dissolved oxygen, pH, alkalinity, ammonia, nitrate, nitrite, phosphate, silicate and chlorophyll a and zooplankton biomass.
 3. generate baseline records of the bottom sediment quality parameters sedimentation rate, colour and odour, redox potential, grain size, calcium carbonate, organic carbon, organic nitrogen and total phosphorus
 4. generate baseline records of the bottom habitat on live coral cover and reef health

5. generate baseline records of fish abundance and diversity in coral reef and sea grass habitats
6. discuss the generated records and provide simple data analysis to identify possible trends or abnormalities.
7. establish standard characteristics of the Jordanian waters of the Gulf of Aqaba.

3.8.2. Sampling stations and frequency

Water samples have been collected from ten coastal stations and one reference offshore station. The coastal stations begin at the northern border and spread along the Jordanian coast as shown in Fig.1. Samples were collected at 0.5m depths from a water column of 10-15m. The reference offshore station is located 3 km offshore of the MSS. All coastal and offshore stations were sampled concurrently at monthly intervals.

3.8.3. Study Site:



3.8.4. Monitoring component and parameters

- ✓ The monitoring program focus on the characteristic of the Physical, Chemicals and biological properties of the Jordanian coastal waters in comparison with offshore reference waters.
- ✓ Physical properties are: water turbidity-transparency, colour, temperature, and salinity.
- ✓ Chemical properties are dissolved Oxygen, PH, alkalinity, ammonia, nitrate, nitrite, phosphate and silicate.
- ✓ Biological properties: Chlorophyll a, total Coliform and fecal Coliform.
- ✓ On the other hand, biological monitoring focuses on coral reed live percentage cover, sea grass and algae.
- ✓ The monitoring program is designed to shed light on site-specific fish community structures.

- ✓ Monthly averages of some parameters in the coastal water for the years 1999, 2000, 2001, 2002, and 2003, and mean standard deviation for the reference and allowed difference for each parameter.

3.8.5. Recommendations:

1. The modification of the water quality at the northern stations should take in consideration, the recommendation here is to take care about the possibility of any uncontrolled discharges from the adjacent coastal activities going into the sea. Based on results, source point sampling program might be necessary at some northern stations.
2. Strengthen the enforcement of EIA on coastal investment, improper construction and or management of coastal facilities can be a serious threat to the seawater quality and the entire ecosystem affecting the profitability and sustainability of the facility.
3. Efforts need to be coordinated between the different components of the National Monitoring Program; monitoring, public awareness, the Aqaba Marine Park and the Commission of Environment at ASEZA, to ensure sustainability of the Program by getting the public and the private sectors actively involved. This can be achieved by holding conferences, using posters and lectures.

3.9. Other issues

- Although there is no Mediterranean coast in Jordan, some maritime priorities are relevant to the Mediterranean.
- The development of competitive port facilities in Aqaba is a key strategic issue for Jordan, and although the port is located in the Red Sea, Mediterranean ports are among the competitors for Aqaba for ships using the Suez canal.
- Similarly, there are synergies between the implementation of maritime transport rules (especially safety, pollution) in Jordan and Mediterranean maritime transport, and Jordan participates in a number of Mediterranean maritime processes (e.g. the Mediterranean Port State MOU). 20% of ships coming through Aqaba are inspected according to the Mediterranean MOU.

4. Institutional and Organizational Analysis

4.1. General remarks

- At the central level, there is no overall governance framework for maritime matters, nor any general maritime policy. However, maritime affairs are almost entirely passed over to ASEZA, the authority responsible for the Jordan coastal area. Within ASEZA, there are some (mainly coastal rather than marine) planning and policy measures in place, which have scope for further development.

4.2. Institutional and organizational framework

4.2.1. Government institutions involved in maritime affairs

- No one single government institution has responsibility for the administration of maritime affairs.
- Moreover, the coastal region (Aqaba) has substantial policy and legal autonomy meaning that responsibility for several maritime matters is largely in the hands of the regional administration – the Aqaba Special Economic Zone Authority (ASEZA) – rather than central ministries (although central ministries remain ultimately responsible for sectorial policy areas).
- The principal central government agencies that are involved in the management of maritime affairs are:

Institution	Role / relevance
Ministry of Transport represented by Jordanian Maritime Commission	Organizing, control and developing the maritime transport sector in Jordan including all transportation modes, services and human resources taking into account the protection of the marine environment and enhancing maritime safety and security. It is also responsible for Licensing maritime activities in cooperation and coordination with the parties concerned and in conformity with the provisions of ASEZA laws.
Aqaba Port Maritime Services Company	APMSCO is a private shareholding company incorporated in Jordan. The joint venture is between ADC (Jordanian Government) and Lamnalco. It was launched in 2007 to provide the marine services in the port of Aqaba (Pilotage, Towage, Mooring & Unmooring, VTS, Barge & Lighter Towing, Fresh Water supply, Garbage collection, Slipway operations, Fire Fighting).
Royal Jordanian Navy Force	It is the only authorized organization with Law Enforcement Authority, it is double hatted: carries out the role of the navy and the duties of the coast guard. it has many tasks: Maritime and Coastal Surveillance, Deterrence through Naval Presence, Controlling all maritime and security operations within the Gulf of Aqaba, carrying out law enforcement within our territorial water.
Aqaba Special Economic Zone Authority Represented by Environmental Commission	<ol style="list-style-type: none"> Develop the needed environmental strategies relevant legislations and preparing action plans & Regulate environmental License, inspect and audit all types of development and activities to ensure environmental to ensure environmental protection compliance with best available techniques and measures are used to prevent or minimize pollution to the environment. Enforcement of environmental laws and regulation & Preserve the quality of coastal water by regulate and mitigate or remedy marine pollution.
Aqaba Special Economic Zone Authority Represented by infrastructure Commission	preparation and implementation of Master plan of city including coastal areas, zoning and specified uses of land and sea and Building permits and monitoring of city growth and special planning including city expansion and mega projects.
Aqaba Development Corporation	Aqaba Development Corporation (ADC) was launched in 2004, it is mandated to develop ASEZ through building new or expanding existing infrastructure and the required superstructure, enablers for ASEZ and maximizing the attraction of private sector developers and operators. it is also responsible for implement the ASEZ Master Plan in a manner that ensures integrated development and transforms Aqaba into a leading business and leisure hub on the Red Sea.

Institution	Role / relevance
Ministry of Agriculture	responsible for the promotion of food security through the sustainable development of the agriculture sector, including resource use.
Ministry of Public Works and Housing	undertakes the construction and development of the network of roads in the Kingdom, connecting cities, villages and housing areas, industrial and agricultural locations, tourist and archaeological sites, as well as connecting the Kingdom with neighbouring countries.
Ministry of Industry and Trade	responsible for regulating the industry by type, classifying it, registering it according to an internal regulation, and preparing the programs and studies that work on developing the industry and increasing its competitiveness.
Ministry of Water and Irrigation	responsible for the development of sustainable water policies and design of water projects.
Ministry of Tourism and Antiquities	responsible for promoting the country as a unique tourist destination and developing the tourism sector including the private sector.
Ministry of Planning and International Cooperation	responsible for environmental surveys and the provision of relevant statistics to policy makers. Specifically it monitors the results of liquid and solid wastes and hazardous wastes.
Ministry of the Environment	responsible for developing environmental policies including sustainable tourism projects.

4.2.2. Laws & Regulations & Legislations

4.2.2.1. *Jordan Maritime Commission*

- JMC was established in 2002 by Royal Decree, and now has its own framework law, The Jordan Maritime Authority Law No. 46, issued on 01/10/2006
- JMC is under the responsibility of the Ministry of Transport, but enjoys financial and administrative autonomy.
- Vision: Towards safe, secure and organized maritime sector in Jordan combined with high safety and quality levels and opening new investment opportunities in the maritime sector.
- Mission: Achieving the highest standards for organizing, control and developing of the maritime sector in Jordan including all transportation modes, services and human recourses taking into account the protection of the marine environment and enhancing the maritime safety and security to enhance the competency of the sector and provide best services to customers JMC Policy.

The Commission aims to achieve the following objectives:

- a. Regulate, supervise and develop the maritime sector including all transportation
- b. modes, stationary and moving equipment, labour force, transport auxiliaries and
- c. associated services, and provide guidance according to the Kingdom's economic
- d. and social plans in conformity with the provisions of ASEZA Law in force.

- e. Enhance the private sector's role in contribution to improve and develop the maritime sector.
- f. Encourage competition and prevent monopoly in the sector.
- g. Contribute in marine environment protection and boost maritime safety standards.
- The main functions of JMC include:
 - ✓ Licensing maritime activities in cooperation and coordination with the parties concerned and in conformity with the provisions of ASEZA laws.
 - ✓ registration of ships under the Jordanian flag.
 - ✓ issuance of statutory certificates for Jordanian ships.
 - ✓ issuance of documents and certificates for seafarers in the maritime sector including certificates of competency.
 - ✓ conducting inspections and surveys on ships and marine equipment in the Aqaba Port area and within Jordanian territorial waters.
 - ✓ control of pilotage, tugboat activities and coastal navigation in the Jordanian territorial waters.
 - ✓ follow up of search, rescue and salvage operations within and outside Jordanian territorial waters.
 - ✓ investigating maritime accidents within the Jordanian territorial waters and on Jordanian ships (wherever they may be).
 - ✓ cooperation and coordination with national, regional and international parties and advising the Ministry on ratification of bilateral, regional and international maritime conventions (and following-up their implementation).
 - ✓ representing Jordan at international and regional maritime organizations, unions, committees, etc. and following-up on their activities
 - ✓ taking necessary measures to ensure compliance of ships of maritime security, health requirements, protection of the marine environment, conducting radio communications with ships, dealing with the impacts of marine accidents and detention of ships taking into account the provisions of ASEZA laws.
 - ✓ organizing and control of maritime activities within Jordanian territorial waters taking into account the provisions of ASEZA laws.

4.2.2.2. *Royal Jordanian Navy Force (RJNF)*

- The Royal Jordanian Naval Force (RJNF) is the Naval entity of the Jordanian Armed Forces. The RJNF was established in 1951 in the Gulf of Aqaba which provides access to the Red Sea and is shared by four countries ,Jordan, Israel, Saudi Arabia and Egypt. The primary role of the Jordanian navy is protection of territorial water and border security.
- As the RJNF is the only authorized organization with Law Enforcement Authority, it is double hated: carries out the role of the navy and the duties of the coast guard. it has many tasks: Maritime and Coastal Surveillance, Deterrence through Naval Presence, Controlling all maritime and security operations within the Gulf of Aqaba, carrying out law enforcement within our territorial water (Smuggling and Counter Narcotics, Counter Infiltration, and Enforcing Applicable Laws), Protecting Civilian and Military installations in Aqaba , Maritime Environmental Protection, Assisting the Port Authority in Salvage & Fire Fighting operations at sea, Providing technical support for subsurface installations in the Gulf of Aqaba, Regulating all boating and fishing activities, Providing Training of maritime related courses, RJNF carries out all SAR activities in our territorial water and Gulf of Aqaba in cooperation with JMC, Last but not least RJNF conducts surveillance through(the Naval Operation Centre which has the latest versions of equipment and covers the Area of Responsibility , and through patrolling our territorial water 24/7).

4.2.2.3. *National laws*

- Analytically, maritime laws in Jordan may be split into three categories: (1) coastal and other legislation, within the framework of ASEZA; (2) specific maritime legislation (maritime transport regulations, adopted by the Jordan Maritime Commission); and (3) general legislation applying to the maritime sector (usually primary legislation, under the responsibility of central government, applying to maritime and non-maritime sectors).
- While laws in Jordan are in place, there is a still a need to enforce them effectively.

4.2.2.4. *ASEZA laws (relevant to coastal and marine management)*

- Several domestic laws, standards and guidelines are used by ASEZA for protecting and maintaining the marine environment, including:
- ASEZA Law No. 32 (2000): Article 52 states that the ASEZA is in charge for protecting and mainstreaming marine environment and promoting development in the area.
- Environmental Protection Regulation No. 21 (2001).
- Aqaba Marine Park Regulation No. 22 (2001).

4.2.2.5. *Maritime regulations*

- A number of regulations have been adopted implementing (mainly IMO) international rules.

4.2.3. *Other Institutions and Organizations*

- A number of other organizations are involved in environmental activities in the Aqaba region through advocacy and raising community awareness of the value of the coast. The Jordan Sustainable Development Society has a bird watching tower and the Royal Marine Conservation Society of Jordan (JREDS) has a permanent office to examine marine issues, lobby and identify problems. Land and Human to Advocate Progress (LHAP) is a non- governmental Organization, active in the region in organizing a number of clean up campaigns and Coast Day events, as well as conducting an assessment survey to measure the value of the Gulf of Aqaba.
- In addition, the Marine Science Station is a research station established in 1980 as a co-operative facility between the Jordan University and Yarmouk University to monitor coral reef ecological trends, and conduct research to measure development impacts on the marine life. It works closely with ASEZA as an advisory body on a contractual basis to provide consultancy services and facilities for training.

4.3. *International & Regional cooperation*

4.3.1. *Regional cooperation activities*

- As it is not a Mediterranean coastal State, Jordan does not generally participate in Mediterranean regional agreements.
- Jordan has a full membership in the *Memorandum of Understanding on Port State Control in the Mediterranean Region*
- It also participates (as observer or at the technical level) in various Mediterranean Organizations/processes, including:
 - The Priority Actions Programme Regional Activity Centre (PAP/RAC).
 - Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC).
 - Union of the Mediterranean (UfM).
 - International Oceanographic Commission (IOC).
 - The **Regional Activity Centre for Information and Communication** (INFO-RAC).
 - Mediterranean and Wetlands Initiative (MedWet).

4.3.2. *PERSGA activities in the Gulf of Aqaba*

- “ The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden” is an intergovernmental organization dedicated to the conservation of the coastal and marine environments in the region.

- The Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment (Jeddah Convention) 1982, provides the legal foundation for PERSGA. The Secretariat of the Organization was formally established in Jeddah following the Cairo Declaration of September 1995. The PERSGA member states are: Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan and Yemen.

4.3.3. Ballast water Ballast Water Management projects and Strategy

- Red Sea is considered as semi-enclosed sea with high salinity, high water temperature, minimum sea currents and tide level with high transparency of the water.
- Maintain the outstanding level and marine environment of the Gulf of Aqaba where no increase in zoo plankton and phytoplankton and harmful invasive result threw the Ballast water change from the ships in Ballast water tanks so as not to harm the Marine life's environment ,Beaches ,Resorts and attractions.
- National BWM Committee was issued by ministry of transportation – Jordan Maritime Commission consists of all related entities was formed on 2008
- The BWMC committee carried four workshop on ballast water management to recognize the entitled parties for the importance of the convention and how to applied .
- The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) in cooperation with the Glo-Ballast Partnerships Project Coordination Unit and the Jordan Maritime Commission held in Jordan Maritime Commission headquarters in Aqaba city hosted &Supported by: GEF UNDP Glo-Ballast Partnerships Project and IMO's Integrated Technical Cooperation Program .
- -The First Glo-ballast Regional Task Force Meeting on June 2009 carried out by PERSGA
- The four workshops in BWM were attended by all concerned bodies with this issue the first one was in 2010 at the Jordan university – Aqaba branch and the second in 20112 at the Jordan Maritime Academy for marine studies the third work shop was carried out at the Jordan Maritime commission at 2013 and last one on May 2014 under the patronage of the Minister of transport, Chairman of the maritime Commission with the IMO representative and IMO expert for sampling it is focused on the convention regulation and how can be taken ballast water sample from ships tanks and how can be test the samples.

Compliance Monitoring and Enforcement Objectives

- Provide participants with skills and knowledge necessary to prepare Flag and Port State Control Officers to do their work efficiently and effectively under the BWM Convention, in accordance with the provisions of the Convention.
1. Introduction to Ballast Water Management.
 2. Relevant Instruments, Principles and Strategies.

3. Ballast Water Management Convention and Guidelines.
4. Flag, Port and Coastal State Aspects of Ballast Water Management.
5. Compliance Monitoring and Enforcement.
6. It provides a common set of knowledge and skills.

4.3.4. Produced Persistent Organic Pollutants

1. POPs in the PERSGA Region:

The coastal zone of the Red Sea and Gulf of Aden has been witnessing a rapid economic and tourism growth in the last three decades. This is expected to continue in the future. Several coastal investment projects are still in planning in Egypt, Jordan, Saudi Arabia, Sudan and Yemen, mainly in the petroleum and petrochemical industries. This is not to mention the change in the style of life of the new generations by planning new modern cities at the coastal zone. Rapid industrialization will create high pollution rate and hotspots. As a result the use of raw materials, chemicals and energy will increase as well

Rational of Regional Action :

PERSGA has prepared the “Protocol for the Protection of the Marine Environment of the Red Sea and Gulf of Aden from Land-Base Sources (LBS) of Pollution”. The Protocol states that the contracting parties are: “Committed to the precautionary principle and the ‘polluter pays principle’ and to the use of Environmental Impact Assessments together with the use of the best available technologies and ideal environmental practices, including clean technology production”; “Determined to take the necessary measures in a framework of close cooperation among themselves, to protect the Red Sea and Gulf of Aden from Land-Based sources of pollution”

Article 5, states that the contracting parties shall prevent pollution from LBS, with particular emphasis on the gradual elimination of inputs of toxic, persistent, and bio-accumulating substances by implementation of work plans based on source control.

Article 19, deals with the “adoption of regional measures, work plans and programmes” to best combat pollution and, as such, PERSGA has been working to facilitate translating the written mandates of the protocol into on-the-ground actions

2. An Agreement to establish a pilot on-line Monitoring Network in Aqaba:

An agreement was signed between PERSGA and its collaborators in Jordan, comprising both government and private sector partners, for the implementation of a demo project establishing a pilot on-line network for monitoring coastal water quality in Aqaba.

The agreement signed on November 2nd 2009, mainly involves PERSGA, Aqaba Special Economic Zone Authority (ASEZA) and Aqaba Development corporation (ADC), who will support implementation of the project that has

been launched in the framework of the PERSGA's On-the-ground Activities Program in Jordan

Goal:

To conduct an on-going quantitative and qualitative assessment of habitat and biodiversity loss, marine environment pollution, coastal areas degradation in the RSGA marine environment and coastal areas; verification of critically threatened areas; trans-boundary diagnostic analysis; adaptive management and design and establishment of monitoring methodology/programme.

In collaboration with AMP and ASEZA PERSGA implemented an ecotourism project in Aqaba

The short coastal strip of Aqaba is getting increasingly crowded with human activities and visitors. The Aqaba Economic Zone Authorities (ASEZA) along with Aqaba Marine Park (AMP) administration exerts substantial efforts to protect marine environment and ensure safety of tourist swimmers and divers. AMP is a part of the Regional Network of MPAs, which PERSGA has established and run since 2005. In the framework of the On-the-ground Activities Program, a joint ecotourism demo project was implemented by PERSGA, ASEZA and AMP during September-October 2009 at the AMP coastal area. The project objectives were to carry out a rapid assessment study to identify problems related to conservation of marine environment and safety of tourist visitors at the AMP coast; and in light of the assessment results, to make out and apply some actions.

The assessment study carried out by the project team indicated that the numbers of visitors and glass boats are significantly rising, which will increase risks of boat grounding or accidental crash of swimmers, drowning and impacts on coastal environment unless additional regulative actions are undertaken to endorse and enhance the efforts by ASEZA and AMP. Hence, the project implementation was designed to include extending the number of mooring buoys to assure their adequacy for boaters and eliminate boat anchorage on reefs; delineating clearly labelled sites for swimmers and snorkels to avoid them the risk of boat collision; defining specific routes for boat sailing from boarding and disembarking sites; in addition to implementing some measures to ensure sustainability of the applied tools and actions.

Consequently, the project team has implemented the planned project activities, which included:

- ☒ Installation of 26 mooring buoys, including 19 for servicing diving tourism boaters (marked as orange buoys), and 7 for excursion boaters (marked as white buoys).
- ☒ Delineating shore zones for swimmers and snorkels by ropes supplied with small yellow buoys.

- ☒ Selecting entry sites and sailing routes for boaters and delineate them with labelled ropes.
- ☒ Putting informative signs along the shore and warning signs indicating locations with submerged sharply ridging reef rocks;
- ☒ Locating coordinates of installed buoys and incorporate coordinates in AMP and ASEZA database maps and satellite images.

Development of outreach materials in the form of leaflets, instruction booklets and an electronic newsletter for visitors and other stakeholders, and training of AMP staff on follow up and routine maintenance of mooring buoys/ ropes and sustainability of the project plans and activities.

4.3.5. Djibouti Code of Conduct – Piracy information Unite (PIU)- IMO



- The Djibouti Meeting adopted the Code of Conduct concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden, which was signed on 29 January 2009 by the representatives of Djibouti, Ethiopia, Kenya, Madagascar, Maldives, Seychelles, Somalia, the United Republic of Tanzania and Yemen. It remains open for signature at IMO Headquarters by other countries in the region. Comoros, Egypt, Eritrea, Jordan, Mauritius, Mozambique, Oman, Saudi Arabia, South Africa, Sudan and the United Arab Emirates have since signed making the current total 20 countries from the 21 eligible to sign the Djibouti Code of Conduct.

- The Code, which became effective from the date it was signed (29 January 2009), takes into account and promotes the implementation of those aspects of UN Security Council resolutions 1816 (2008), 1838 (2008), 1846 (2008) and 1851 (2008) and of UN General Assembly resolution 63/111, which fall within the competence of IMO.

4.3.6. Sub-regional and bilateral cooperation

- The Peace Treaty between Israel and Jordan, signed on 24 October 1994, establishes a strong basis for environmental consultation and co-operation between these two states bordering the Gulf of Aqaba.
- The two States have co-operated on several occasions. Some research has been carried out in collaboration with the Marine Science Station. In addition, an oil spill incident in the Jordanian side received the full support from the Israeli side and was followed by training to the Jordanian side.
- The Red Sea Marine Peace Park between Jordan and Israel was also established as part of the 1994 peace treaty. It promotes collaboration between the countries to protect trans boundary coral reefs and tourism. Although not contiguous, the two MPAs in each country's waters share common species and environmental stresses.
- Some bilateral agreements have been signed with **Lebanon** And with **Egypt**:

4.3.7. International agreements and Organizations

- Jordan has ratified most of the principal maritime agreements, although there are some gaps (and it has often not ratified the latest protocols).

4.4. Maritime governance

4.4.1. Maritime policies

- Jordan lacks a specific maritime integration policy, however the Jordanian Maritime Commission is responsible for the monitoring and controlling all maritime activity.
- ASEZA has adopted a number of policies associated with the regulation, management, and protection of the natural environment among which are the Environmental Policy, the Marine Protection Policy, the Groundwater Management Policy, the Wastewater Management Policy, the Water Conservation Policy, and the Energy Conservation Policy. More recently adopted a comprehensive National Programme of Action for the Protection of the Marine Environment from Land-Based Activities.
- In addition, ASEZA adopted in 2001 the Master Plan and Land-use Plan. They were designed to guide the development in the area until the year 2020. The Plans are comprised of development of a protected area for corals, a reduction of phosphate dust emissions, reduction of ship discharges, and measures on drainage, sedimentation and fishing.

4.4.2. Maritime governance structures

- There is no formal integrated / coordinated body, although there is close cooperation between ASEZA and JMC.

4.4.3. Public participation and access to information

- Public participation processes are weak, and are not routinely applied.
- NGOs have a “soft” relationship with ASEZA and, therefore, their influence is minimal. In particular, they are not powerful to advocate what they want when it comes to certain plans. For instance, in the relocation of the port scoping session, NGOs were heard, some of their remarks were considered, but no process was in place to ensure that what they wanted were considered in implementing the actual work.

4.4.4. Progress towards IMP

- As regards the Aqaba region, Jordan is well-placed to embrace IMP. Mechanisms for coordination exist between the relevant departments of ASEZA internally and between ASEZA and the JMC. (They exist to a lesser extent, however, with other government ministries). Within the Aqaba zone, coastal (land) use plans exist, and ASEZA is currently in the process of considering the development of a coastal / marine spatial plan. Some marine reserves already exist, in order to protect coral reefs, and the protection of these appears to be taken very seriously. Several policy documents and strategies are in existence (e.g. National Programme of Action for the Protection of the Marine Environment from Land-Based Activities).
- Both within JMC and ASEZA, concepts and tools of integration are reasonably well understood. In practice, however, some difficulties are occasionally encountered in carrying out agreed integrated procedures. As well as transport – environment integrations, tourism is also accorded a relatively high priority in regional planning (the region is an important diving and beach resort). There is little integration with the fisheries sector, which is not very substantial (although some conflicts do occur).

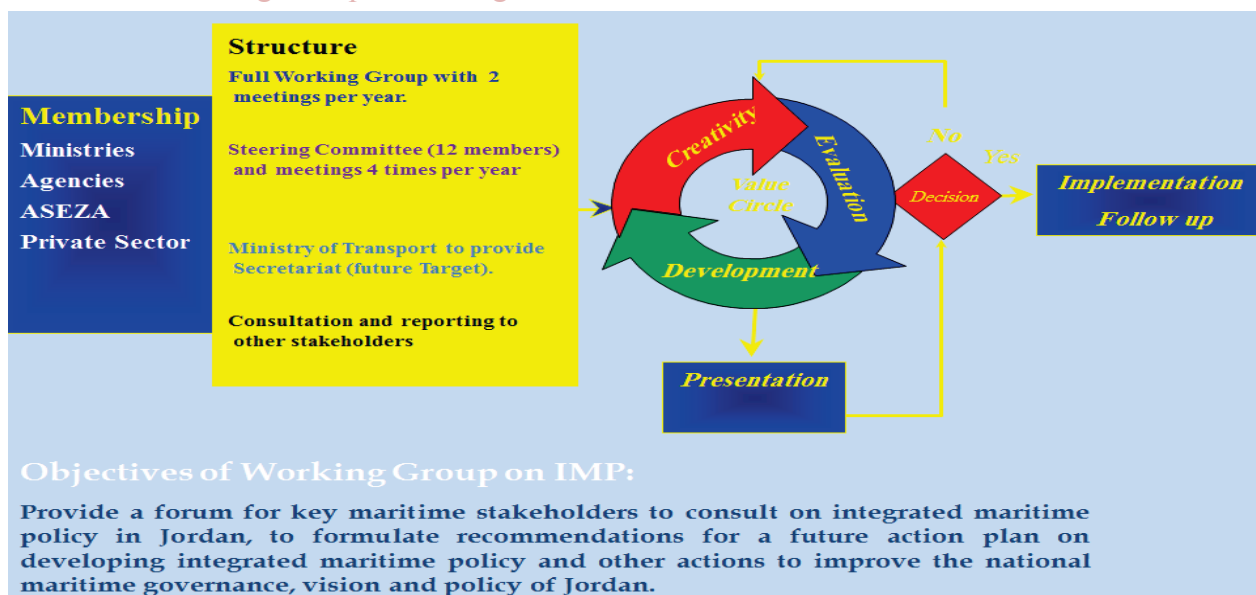
5. Consideration of IMP-MED national Vision Development

5.1. The National working group & Steering committee for IMP

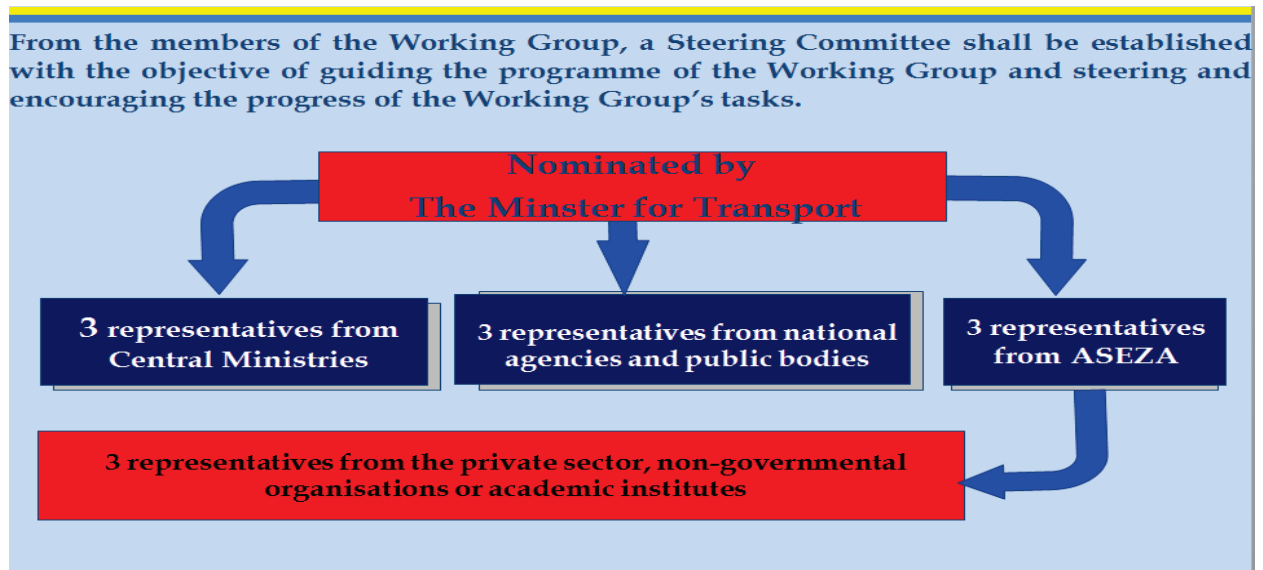
5.1.1. Formulation of the National working group and Steering committee

A national working group and Steering committee were formulated on 17/12/2012 to follow up on the IMP-MED Project progress in Jordan, upon a recommendation submitted by the National Coordinator of IMP-MED Project during the National workshop that was held on the 1st of November, Royal Hotel / Amman under the patronage of the Minister of Transport and the presence of IMP-MED Team expert.

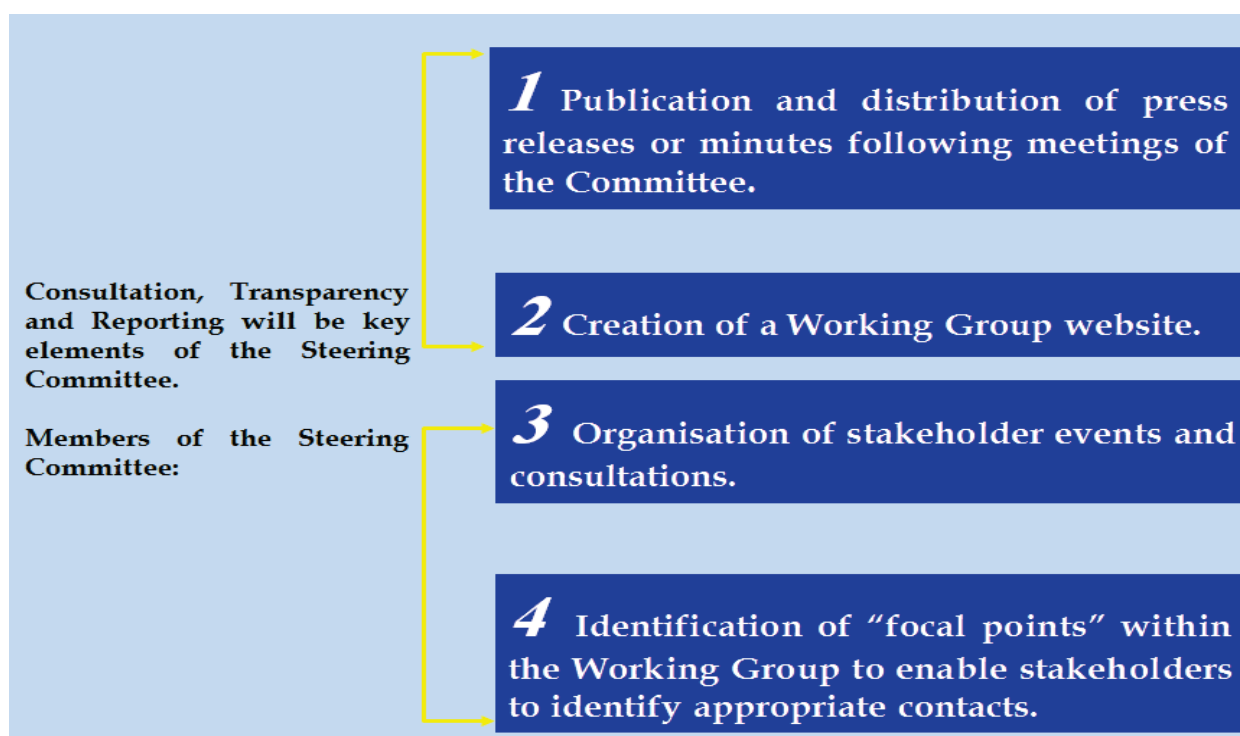
5.1.2. Working Group & Steering Committee Mechanism



5.1.3. Steering Committee Membership & Mechanism



5.1.4. Consultation, Reporting and Transparency



5.1.5. Tasks of Steering Committee on IMP

Tasks of Steering Committee on IMP

- ▶ Provide a forum for discussion and consultations amongst maritime stakeholders, with a view to develop consistent and common approaches and policies.
- ▶ Provide a network for the exchange of information on maritime policy, laws and actions .
- ▶ Initiate & manage a mapping exercise of the roles, functions and responsibilities of institutions (identify existing mechanisms, clarify institutional responsibilities, identify gaps and needs, etc.) .
- ▶ Develop proposals for a national action plan on maritime policy.
- ▶ Develop proposals and recommendations for a national maritime vision .
- ▶ Develop proposals and recommendations for a national maritime governance structure .
- ▶ Develop proposals and recommendations for improving governance structures at every level, including increasing stakeholder involvement, public participation and awareness .
- ▶ Coordination with IMP-MED project.

5.2. IMP-MED Project Technical Assistance to Jordan

- The IMP-MED project aims at promoting integration of maritime issues, therefore the TA activities need to reflect this logic and look at the specific maritime issues with a wide vision based on the reinforcement of sectorial integration, governance, long term sustainability, mainstreaming of environmental issues. In addition, TA activities have to be compatible in with the limited resources available within the IMP-MED project.
- A National team was formulated on 20/10/2013 to follow up the Technical Assistance issues of IMP-MED Project in Jordan upon a recommendation submitted by the National Coordinator of IMP-MED Project during the final meeting of the IMP-MED Team and IMP-MED Steering committee on November 2013, under the patronage of the minister of transport and the presence of IMP-MED Team, as following:

5.2.1. TSS off Aqaba coasts: Preparation of TSS in agreement with neighbouring states

- The northern end of the Gulf of Aqaba is a very busy maritime area, with many maritime activities: harbours, tourism and diving, fishing, passenger's traffic. In Jordanian waters, there is intense maritime traffic to and from the Aqaba harbours; a part of this traffic is related to oil or other dangerous cargoes, with large ships (up to 400 000 tons) sailing very close to sensitive environment and to socio-economic activities.
 - Presently, the navigation is not regulated except in harbours areas. Due to deep waters anchoring areas are very limited and very close to the coast, and many ships wait adrift until they can berth for loading or unloading in one of the Al Aqaba ports.
 - In order to improve both maritime safety and port operations through better regulation of the navigation of large ships, the Aqaba Port Authority is studying the development of a Traffic Separation Scheme (TSS) in the Jordanian part of the Gulf.
 - In the framework of the EU Project "IMP-MED" (Integrated Maritime Policy in the Mediterranean), technical assistance was proposed to the partner countries, including Jordan (beneficiary of the ENPI program) to improve some of their maritime project in terms of integration. This pre-feasibility study by the project team is focused on integration issues, including cross-sectorial integration, environmental integration and regional integration. The details of the maritime regulation scheme (number of lanes, access channels to ports, management...) have not been addressed in this work.
- ✓ Focal Point: Capt. Zafer Al-Fryhat / Aqaba Private maritime Service Company.

5.2.2. Maritime governance: Definition of scenarios for the maritime coordination

- *Main Objective is How to develop National Strategy to Improve Maritime Governance in Jordan with correspondence to:*

- 1) Meeting the different maritime challenges (ports development ,security, fisheries, aquaculture, environmental protection, climate change) facing the Mediterranean basin.
- 2) Improving governance of maritime affairs which should **balance economic development with protection of the environment.**
- 3) The approach to maritime policy should encourages links between different maritime activities and to abandon sectorial actions and promote a comprehensive strategy.
- 4) The governance must be able to ensure more sustainable growth for Jordan .
- 5) The success of this strategy requires enhanced cooperation with all concerned public and Privet sectors taking into account regional dimension.

✓ Focal Point: Eng. Moain Al-Zoubi / Aqaba Development Corporation.

5.2.3. Marine Use Plan for Aqaba: Assessment/review Marine Use Plan for Aqaba (connection with Aqaba Master Plan)

Objectives of updating Marine master plan:

- 1) Organize more and more maritime activities, For present, but also for future.
- 2) Improve coexistence, reduce conflicts:
 - Overlapping of more and more activities.
 - Using the same space, sometimes in the same time.
- 3) Reduce impacts and risks:
 - Impacts: related to normal activities:
 - Should be reduced as much as possible.
 - Need to consider cumulative impacts.
- 4) Unique space/time regulation reference for all activities:
 - Now, no regulation or separate sectorial regulations.
- 5) cover the whole Jordanian maritime zone
 - Limited area, all activities interdependent, all activities strongly linked to coastal issues

Some issues to be taken into account in the MMP:

- 1) Navigational issues :
 - Shipping routes, coastal and deep water moorings, drifting areas.
 - Traffic regulation scheme is the backbone of the MMP:
 - But the MMP cannot be reduced to the traffic regulation scheme.

- 2) Other activities
 - Coastal tourism, cruises, yachting and boating, bathing, jet ski, wind surf, parasailing, kite surf, professional and sport fishing, diving.
 - Local transport : urban maritime transport, ferries.
 - 3) Requests/compatibility
 - Some activities request specific conditions: environment, space, landscape.
 - Some activities are mutually not compatible.
 - 4) Environmental issues
 - Environment: such like Water quality, biodiversity
 - Interactions environment-activity: such like Water quality and bathing, touristic resorts and large ships close to the beach.
- ✓ Focal Point: Engineer. Mahmoud Shihab / Aqaba Special Economic Zone Authority.

5.2.4. Environmental Monitoring System: Develop monitoring systems for marine environment protection in the Gulf of Aqaba

1. Preparation of the ToR for the development of a pollutants dispersion model and associated monitoring framework for the Gulf of Aqaba.
2. Review of the possible applications of the model and other available information for management of the Aqaba costal and maritime areas.
3. Governance proposal for implementing monitoring and early warning mechanisms for prompt response.

Overall objective:

- MARINE Since Station (MSS) and an Israeli University signed an MOU in 2003 to initiate and support a joint monitoring program between Jordan and Israel in the northern Gulf of Aqaba to inform an environmental management plan for the region.
 - The overall objective of this MOU was to assess the impacts that the development and industrialisation in the region over the last 50 years has had on the Gulf and to identify the main inputs into this Aqaba Marine park system (Figure 1). Initial data gathering and onsite sampling/investigations have been on-going since 2003 and this has generated a significant body of research and data that can be used to inform/calibrate/validate a marine model for the site. These studies are outlined below in Table 1 and will be made available by AESZA to the appointed consultant.
- ✓ Focal Point: Mrs. Taghreed Al-Maaytah / Aqaba Special Economic Zone Authority.

6. Maritime Governance & Maritime Development in Aqaba

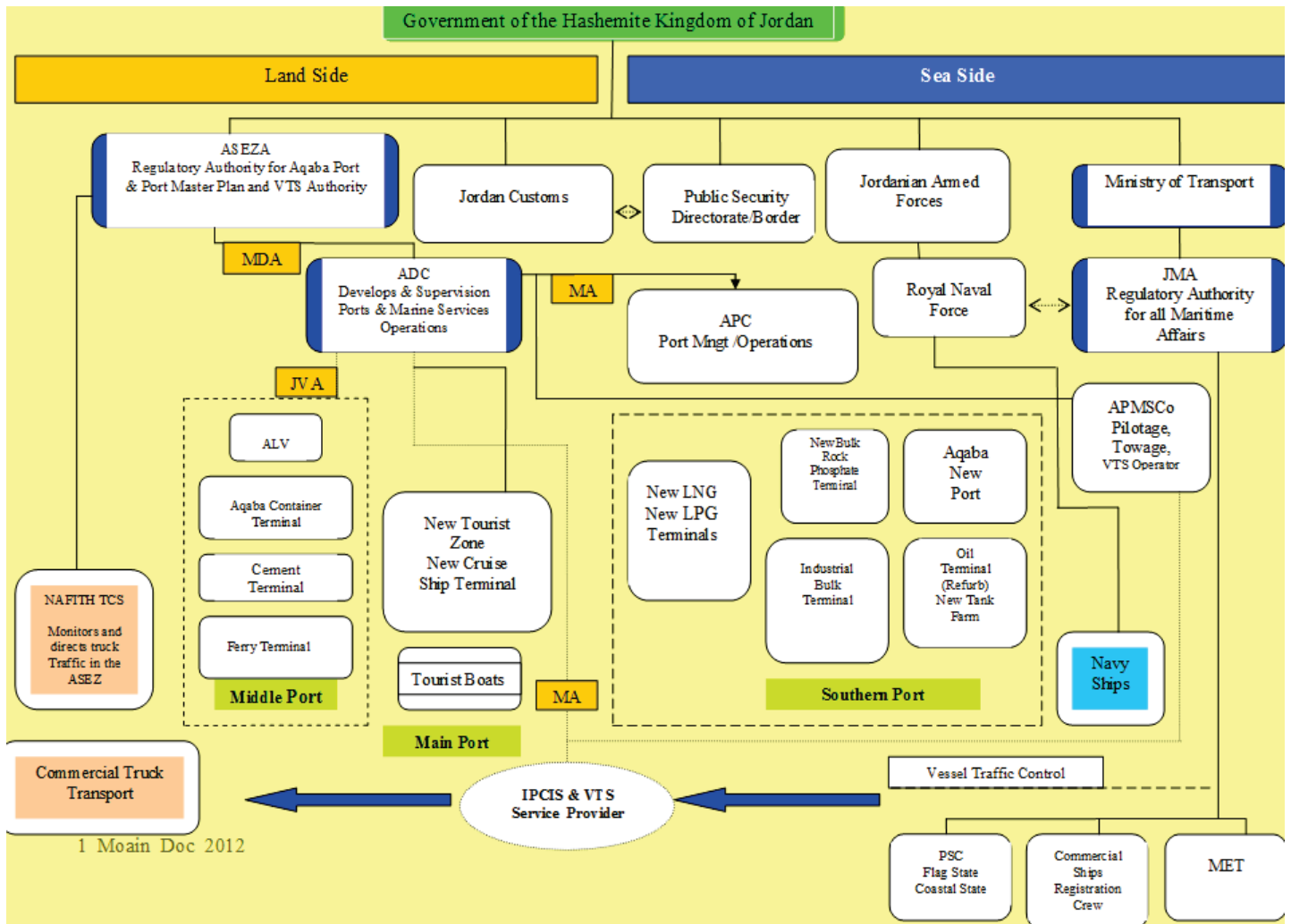
6.1. How to develop National Strategy to Improve Maritime Governance in Jordan

1. The strategy adopted by the European Commission in November 2009.
2. The strategy must meet different maritime challenges (ports development, security, fisheries, aquaculture, environmental protection, climate change) facing the Mediterranean basin.
3. It is based on improving governance of maritime affairs which should balance economic development with protection of the environment.
4. The approach to maritime policy should encourage links between different maritime activities and to abandon sectorial actions and promote a comprehensive strategy.
5. The governance must be able to ensure more sustainable growth for Jordan.
6. The success of this strategy requires enhanced cooperation with all concerned public and private sectors taking into account regional dimension.

6.2. Tools to promote maritime governance

1. Maritime Spatial (3D) Planning (MSP) which leads to better use of marine space. Need study and set up a pilot project to apply MSP in the Mediterranean;
2. Integrated Coastal Zone Management (ICZM). to draw up a (web-based) inventory of best practices in the different maritime areas
3. Integrated research efforts intend to strengthen in line with the European Strategy for Marine and Maritime Research.
4. Integrated maritime surveillance for a safer and Clean Red sea & Mediterranean. For all Red Sea coastal Member States to participate in a pilot project aimed at strengthening cooperation and information exchange between the national authorities responsible for maritime monitoring and surveillance. This will improve the coherency of maritime surveillance throughout the Red Sea /Gulf of Aqaba.

6.3. Maritime Transport & Port Sector in Jordan



6.4. Aqaba Port & Coastal Zone Community Institutional Framework

Responsibility	Side		
	Sea side	Ships Ports Interface	Ports
Regulation	JMC	JMC/ASEZA	ASEZA
Landlord/ Ports Owner	ASEZA	ADC	ADC
Operation	APMSCo	APC/ACT/Ports operates	APC/ACT/Other operates

6.5. Performance of Ports & Maritime Transport Activities

Activity	Current State		Future State	
Maritime Administration	32 Jordanian Flag vessels 21 International Conventions	Not IMO member State Audit Scheme	70 Jordanian Flag Vessels listed	IMO member State Audit Scheme listed 32 International Conventions
Ports And Multi model – Logistic Facilities	700 ,000 TEUs Containers /2009	5 STS Gantry Cairns Logistic Village Customs Clearing agents	8 STS Gantry Cairns	-2 Million TEUs Containers/2020 -New port operation 2015 - World class logistic centres -New Energy Ports Community
Shipping Lines and management Companies	Few national shippinglines	APMSCo ISM		Transport 40% of national cargo
Maritime Education and Training	120 Marine Engineers and officers	STCW white list IMO	IMO / EMSA accreditation	Full International Recognition of Jordanian Seafarers
Marine Services providers	124 Companies JMA licenced	Partially Quality certified	APMSCo	Certified as ISO Quality service providers

6.6. Integration Port Master Plan , Maritime Ports Structure in Jordan and coastal zone development (interfacing activities)

- ✓ Ports & Maritime Structure in Jordan.
- ✓ Aqaba Port Master Plan Development.
- ✓ Integration and balance among:
 - Aqaba Port Master Plan Development.
 - Territorial water Master Plan Development.
 - Maritime Ports Structure in Jordan.
 - Coastal zone development.
 - Interfacing of environmental activities.

6.7. Aqaba Port Community Master Plan



6.8. The New Port of Aqaba

By the New Port of Aqaba many strategically positions will serve Jordan's captive market, In order to leverage new business opportunities, it will also be offered industrial land adjacent to the New Port.

The New Port of Aqaba will comprise 3 distinct new terminals that will be located in a large basin created by dredging the foreshore, and they include the General Cargo and Ro-Ro Terminal, the grain Terminal and the New Ferry Terminal. The New Port will accommodate all marine units belonging to Aqaba Ports Marine Services Company (APMSCO) in addition to administrative buildings & marine communication facilities .

6.8.1. Reasons for Ports Development

- ✓ Enhance ports competitiveness:
 - Increase capacity to accommodate (large vessels, growth in cargo)
 - Upgrade Efficiency in operation.
 - Good Quality of services.
- ✓ To be responsive to the Kingdom needs and competition at the regional level to attract new cargo.

6.8.2. Ports Competitiveness Enhancement

1. To increase ports handling capacity as a result of emerging of the economies of scale and consumption(population growth).
2. The growing role of shipping companies in maritime transport
3. The need for quick delivery of goods.

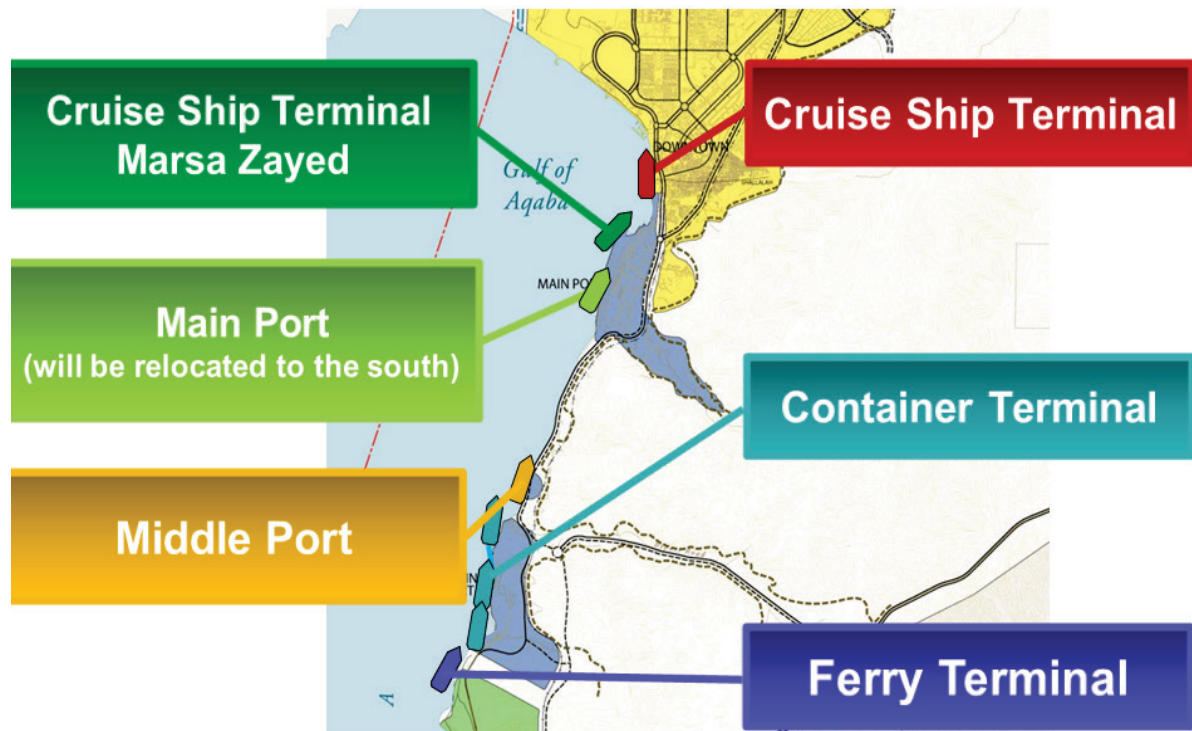
6.8.3. Ports Projects Master Plans Implementation

- ✓ Completed master plans for 2030 and beyond.
- ✓ Breaking up port into business units (Rehabilitating, restructuring, commercializing).
- ✓ 120 JOD million investment in new equipment and facilities.
- ✓ Implementing international Port Security Standards (ISPS).
- ✓ Implementing international Port Environment Management (ECO Port).
- ✓ Integration of port and railway project development.
- ✓ Establish Port Community Information System and Vessel Traffic Service.
- ✓ Comprehensive port relocation work program set in motion.
 - Relocation of Main Port facilities to South Port by 2014.
 - New Ferry Terminal from Middle Port to South Port by 2018.

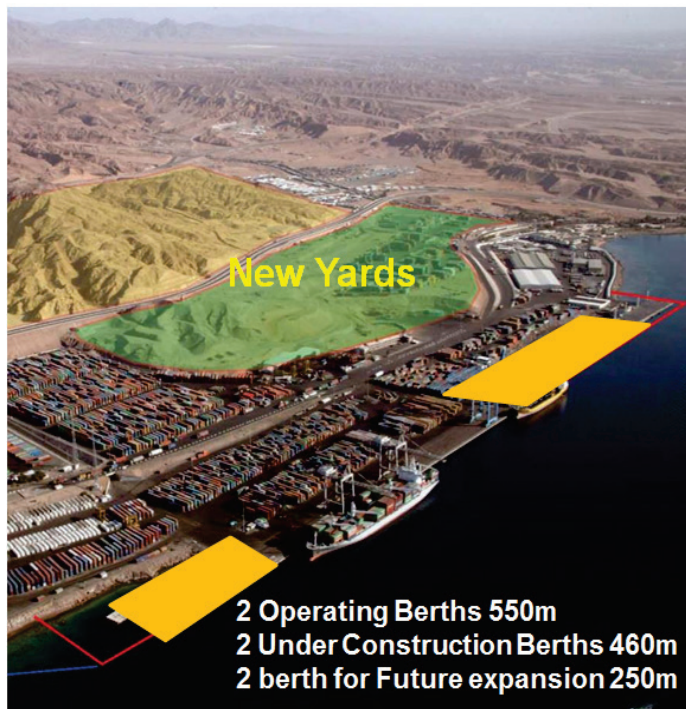
6.8.4. Transport & Logistics Development Prospective

- ✓ International Trends in Multi-Model/ Shipping port operations Compliance.
- ✓ Boost capacity & Efficiency.
- ✓ Enhance Ports and Airport Regional Competitiveness.
- ✓ Safety ,Security and Environment.
- ✓ Long-term & Sustainable Investment.
- ✓ State-of-the-Art Equipment& New Technology.
- ✓ Protect Stakeholders & Partners Investments.

6.8.5. North and middle port Master Plan

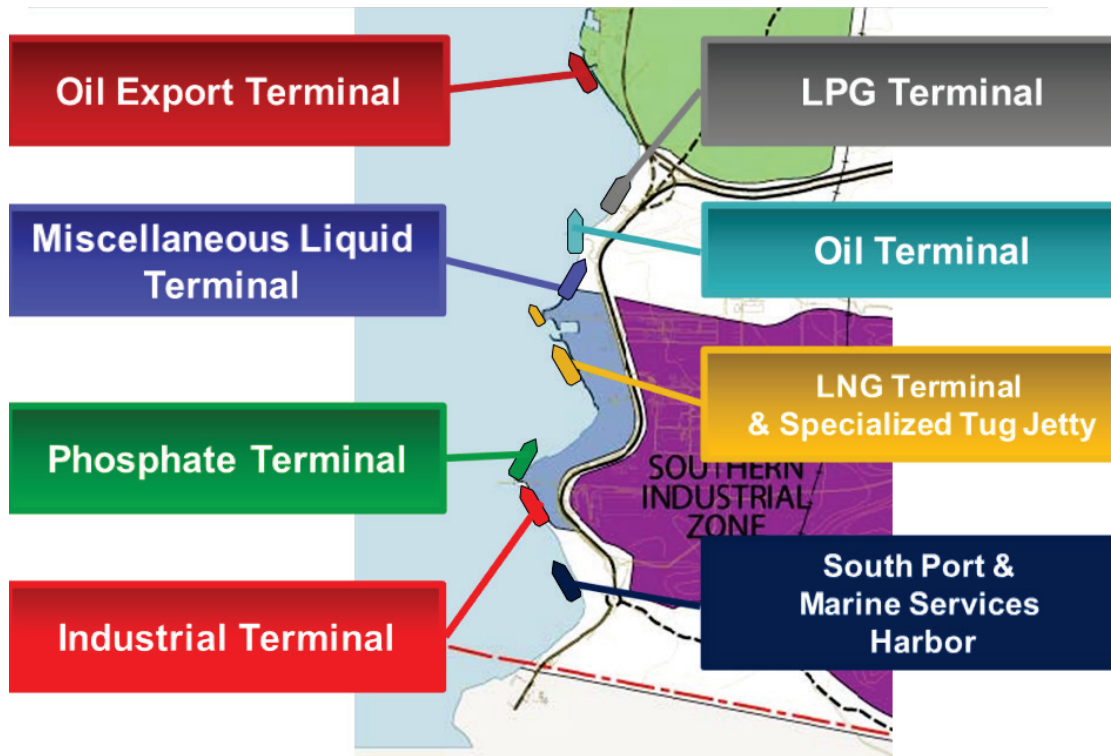


6.8.6. Aqaba Container Terminal

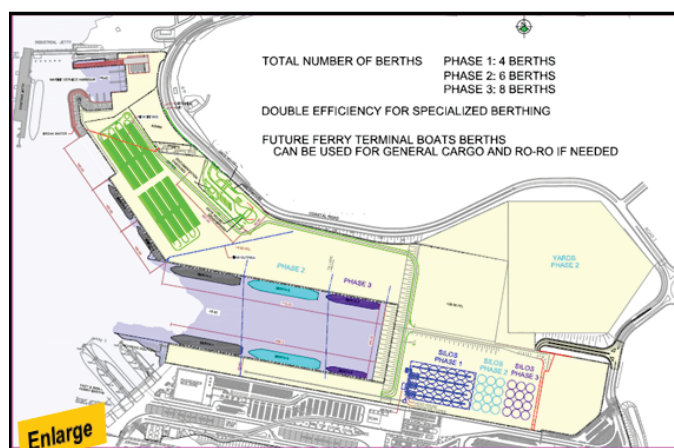


Developer ADC & ACT
Investment 250 MJOD
Stage 1 : Operating Stage 2 : Operating Stage 3 : Implementation
Contract BOT - PPP
Capacity 2.4 Million TEUs/ Year

6.8.7. South Port Master Plan



6.8.8. New Port



Packages

- Package 1 – Marine Works
- Package 2 – Grain Silos
- Package 3 – Infrastructure, Yards, Buildings
- Phase 2 – Expansion of Basin

Developer
ADC

Investment
200 MJOD excluding the phase 2 expansion

Period
2012 - 2015

Capacity
20 Million Ton/ Year

Status
Implementation Stage

7. IMP-MED Project Action Plan for Jordan (2015-2020)

No	Target	Actions, Activities, Procedures And Programmes	Period		Responsibility	Priority			Indicator
			F	T		H	M	L	
1	Improve Governance of Maritime Affairs.	<ul style="list-style-type: none"> ✓ Encourage a more integrated and coordinated approach to maritime governance at appropriate levels. ✓ Increase knowledge of policies and instruments related to IMP. ✓ Promoting the elaboration of National maritime policies. ✓ monitoring mechanism and collection of performance data for centralized database to measure progress and make proposals for improvement. 	Jan 2016	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organization. 				<ul style="list-style-type: none"> ✓ Monitoring reports on performance and improvement. ✓ Particle Procedures Applied to Enhance Maritime Governance.

No	Target	Actions, Activities, Procedures And Programmes	Period		Responsibility	Priority			Indicator
			F	T		H	M	L	
2	Encourage of regional cooperation in maritime matters by addressing gaps in implementation of agreed rules	<ul style="list-style-type: none"> ✓ Building Communication plans and dissemination with neighbouring Countries. ✓ Dedicated Seminars & Workshops on Regional level. ✓ Building on existing co-operation processes and initiatives both at regional and sub-regional levels. ✓ Selection of key case studies for experience sharing. ✓ Launch processes in partner countries which can develop IMP. ✓ Exchange of best practices amongst partner countries. ✓ Encourage a framework that applies integrated approach. 	Jan 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 				<ul style="list-style-type: none"> ✓ Number of training events, workshops, field visits and study tours organized. ✓ Number of shared case studies for experience. ✓ Achieved Exchanged best practices amongst partner countries.

No	Target	Actions, Activities, Procedures And Programmes	Period		Responsibility	Priority			Indicator
			F	T		H	M	L	
3	<p>Improving further awareness raising in all the National parties of the maritime assets both at institutional and non-institutional level.</p> <p>Raising awareness of existing activities and possibilities for meeting the objectives of IMP.</p>	<ul style="list-style-type: none"> ✓ Dedicated Seminars & Workshops on national level. ✓ Develop public awareness campaign package. ✓ Working Together to have an independent Web-Site for the Project in the future and Make all publications available on. ✓ Elaborate monitoring reports and disseminate them. ✓ Development of IMP Manuals, Brochures, leaflets and other Publications. ✓ Develop effective channels for information exchange. 	Jan 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 	H	M	L	<ul style="list-style-type: none"> ✓ Number of training events, workshops, field visits and study tours organized. ✓ Number of Developed IMP Manuals, Brochures, leaflets and other Publications. ✓ Number of Elaborated monitoring reports.

No	Target	Actions, Activities, Procedures And Programmes	period		Responsibility	Priority			Indicator
			F	T		H	M	L	
4	Activating, Improving and Developing the role of the National steering Committee of IMP-MED Project to remove Obstacles & relieve gabs in Maritime Sector.	<ul style="list-style-type: none"> ✓ Coordinating and supporting the Meetings of IMP-NSC. ✓ Work collaboratively to develop and Improve the national plan of actions. 	Jan 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 	H	M	L	<ul style="list-style-type: none"> ✓ Number of Meetings of IMP-NSC. ✓ development and Improvement to the national plan of actions. ✓ Monitoring reports on performance and improvement.

No	Target	Actions, Activities, Procedures And Programmes	period		Responsibility	Priority			Indicator
			F	T		H	M	L	
5	Following up & Supporting Technical Assistance & capacity building.	<ul style="list-style-type: none"> ✓ Following up the forth approved technical assistance aspects of: <ol style="list-style-type: none"> 1. TSS off Aqaba coasts. 2. Maritime governance. 3. Marine Use Plan for Aqaba. 4. Environmental Monitoring. ✓ Proposing New technical assistance aspects of: <ol style="list-style-type: none"> 5. Anchorage Areas management. 6. Maritime Spatial Planning (MSP) & Integrated Coastal Zone Management (ICZM). 7. Building Marine Knowledge. 8. Integrated surveillance for a safer and secure maritime space. ✓ Identify case studies in maritime policy based on identified needs. 	June 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 				<ul style="list-style-type: none"> ✓ Number of training events, workshops, field visits and study tours organized. ✓ Number of beneficiary participants. ✓ Number of achieved Technical assistance aspects. ✓ Number of Identified case studies in maritime policy.

No	Target	Actions, Activities, Procedures And Programmes	period		Responsibility	Priority			Indicator
			F	T		H	M	L	
6	National Coordination:	<ul style="list-style-type: none"> ✓ Dedicated Provision of information, background information and materials. ✓ Establish KPIs, review procedures, monitor performance and propose improvements. ✓ Consult stakeholders, study bottlenecks and propose solutions. ✓ Optimize integrated surveillance process, revenues and security. 	Jan 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 				<ul style="list-style-type: none"> ✓ Coordination by steering Committee & National working group team. ✓ Number of held coordination meetings. ✓ Number and type of covered topics of integrated maritime policy concepts. ✓ Reports to illustrate follow up and achievement of action points from meetings.
		a. Governance of the marine space & Integrated maritime governance.							
		b. Maritime Spatial Planning (MSP) & Integrated Coastal Zone Management (ICZM).							
		c. Maritime Transport.							
		d. Improving Socio- Economic Data for maritime sectors and maritime regions.							
e. Monitoring of Marine Environment.									

No	Target	Actions, Activities, Procedures And Programmes	period		Responsibility	Priority			Indicator
			F	T		H	M	L	
7	Permanent capacity building of IMP-MED Steering Committee members, and other Maritime stakeholders	<ul style="list-style-type: none"> ✓ Dedicated Seminars & technical Workshops on national level. ✓ Build institutional and legislative capacity to develop IMP policies and instruments. ✓ Provide “raw materials” for developing capacity-building tools. ✓ Setting-up logical cross-sectorial structures discussing maritime affairs. ✓ Identify case studies in maritime policy based on identified needs. ✓ Organization of training events, workshops, field visits, study tours. 	Jan 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 				<ul style="list-style-type: none"> ✓ Number of training events, workshops, field visits and study tours organized. ✓ Number of beneficiary participants.

No	Target	Actions, Activities, Procedures And Programmes	period		Responsibility	Priority			Indicator
			F	T		H	M	L	
8	Annual Report on IMP-MED Progress & Maritime Activities in Jordan.	<ul style="list-style-type: none"> ✓ Compile and publish every year an annual report on IMP- MED Progress & Maritime Activities in Jordan. 	Jan 2018	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 				<ul style="list-style-type: none"> ✓ Issued annual report.

No	Target	Actions, Activities, Procedures And Programmes	period		Responsibility	Priority			Indicator
			F	T		H	M	L	
9	F ormulation and assessment of projects in the field of integrated Maritime Policy, Maritime Governance, Monitoring of Marine Environment, ICZM , MSP, Marine Knowledge, Marine Surveillance ... etc.	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee assists in carrying out studies with national and international consultants (IMP-MED Project key experts). 	Jan 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 				<ul style="list-style-type: none"> ✓ Number of assisted Projects and Activities. ✓ Number of IMP-MED Project key experts visits to Jordan.

No	Target	Actions, Activities, Procedures And Programmes	period		Responsibility	Priority			Indicator
			F	T		H	M	L	
10	Data Collection and Management.	<ul style="list-style-type: none"> ✓ Establish databases and collect relevant resource material to be eventually housed at the virtual Knowledge Centre (VKC) & EU IMP-MED Website. 	Jan 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 				<ul style="list-style-type: none"> ✓ Size of Data and Number and type of reports collected. ✓ Launching National IMP-MED website.

No	Target	Actions, Activities, Procedures And Programmes	period		Responsibility	Priority			Indicator
			F	T		H	M	L	
11	Implementation an Integrated Maritime Policy Communications Plan.	<ul style="list-style-type: none"> ✓ Enhancing IMP Visibility. ✓ Producing IMP Promotional Material. ✓ Communicating through the Proposed Website. ✓ Emphasizing the IMP Programme's Achievements. ✓ Supervising Publications. ✓ Awareness Building Events. ✓ Utilizing Existing Corporate Media. ✓ Enhancing Internal And External Communication: <ul style="list-style-type: none"> ☒ Internally to the IMP Group. ☒ Externally to the IMP Regional Level. 	Jan 2015	Dec 2020	<ul style="list-style-type: none"> ✓ IMP-MED steering Committee & National working group team. ✓ Maritime sector affiliated Parities. ✓ Environmental Organizations. 				<ul style="list-style-type: none"> ✓ IMP Visibility. ✓ Launching website. ✓ Issued Publications. ✓ Internal and external Communication.

8. IMP-MED Project Action Plan Time Sheet (2015-2020)

ID	Task Name	2015	2016	2017	2018	2019	2020	2021
1	1. Improve Governance of Maritime Affairs.		[Red bar spanning 2016 to 2020]					
2	1.1 Encourage a more integrated and coordinated approach to maritime governance at appropriate levels.					[Teal bar spanning 2019 to 2020]		
3	1.2 Increase knowledge of policies and instruments related to IMP.				[Teal bar spanning 2018 to 2020]			
4	1.3 Promoting the elaboration of National maritime policies.		[Teal bar spanning 2016 to 2018]					
5	1.4 Monitoring mechanism and collection of performance data for centralized database to measure progress and make proposals for improvement.		[Teal bar spanning 2016 to 2019]					
6	2. Encourage of regional cooperation in maritime matters by addressing gaps in implementation of agreed rules.	[Red bar spanning 2015 to 2020]						
7	2.1 Building Communication plans and dissemination with neighbouring Countries.		[Teal bar spanning 2016 to 2018]					
8	2.2 Dedicated Seminars & Workshops on Regional level.		[Teal bar spanning 2016 to 2020]					
9	2.3 Building on existing co-operation processes and initiatives both at regional and sub-regional levels.					[Teal bar spanning 2019 to 2020]		
10	2.4 Selection of key case studies for experience sharing.				[Teal bar spanning 2018 to 2019]			
11	2.5 Launch processes in partner countries which can develop IMP.						[Teal bar spanning 2020 to 2021]	
12	2.6 Exchange of best practices amongst partner countries.				[Teal bar spanning 2018 to 2020]			
13	2.7 Encourage a framework that applies integrated approach		[Teal bar spanning 2016 to 2017]					
14	2.8 Improving further awareness raising in all the National parties of the maritime assets both at institutional and non-institutional level.	[Teal bar spanning 2015 to 2020]						

ID	Task Name	2015	2016	2017	2018	2019	2020	2021
15	3. Improving further awareness raising in all National parties of the maritime assets both at institutional & non-institutional level & Raising awareness of existing activities and possibilities for meeting the objectives of IMP.							
16	3.1 Dedicated Seminars & Workshops on national level.							
17	3.2 Develop public awareness campaign package.							
18	3.3 Working Together to have an independent Web-Site for the Project in the future and Make all publications available on.							
19	3.4 Elaborate monitoring reports and disseminate them.							
20	3.6 Development of IMP Manuals, Brochures, leaflets and other Publications.							
21	3.7 Develop effective channels for information exchange.							
22	4. Activating, Improving and Developing the role of the National steering Committee of IMP-MED Project to remove Obstacles & relieve gabs in Maritime Sector							
23	4.1 Coordinating and supporting the Meetings of IMP-NSC.							
24	4.2 Work collaboratively to develop and Improve the national plan of actions.							
25	5. Following up & Supporting Technical Assistance & capacity building							
26	5.1 Following up the forth approved technical assistance aspects of (TSS, Maritime governance, Marine Use Plan, Environmental Monitoring.)							
27	5.2 New technical assistance aspects of (Anchorage Areas management, Maritime Spatial Planning (MSP) & Integrated Coastal Zone Management (ICZM), Building Marine Knowledge, Integrated surveillance for a safer and secure maritime space.							
28	5.3 Identify case studies in maritime policy based on identified needs.							

ID	Task Name	2015	2016	2017	2018	2019	2020	2021
29	6. National Coordination	[Red bar spanning 2015-2021]						
30	6.1 Governance of the marine space & Integrated maritime governance.		[Teal bar]		[Teal bar]			
31	6.2 Maritime Spatial Planning (MSP) & Integrated Coastal Zone Management (ICZM).		[Teal bar]					
32	6.3 Maritime Transport.					[Teal bar]		
33	6.4 Improving Socio- Economic Data for maritime sectors and maritime regions.	[Teal bar]			[Teal bar]			
34	6.5 Monitoring of Marine Environment.				[Teal bar]			
35	7. Permanent capacity building of IMP-MED Steering Committee members, and other Maritime stakeholders	[Red bar spanning 2015-2021]						
36	7.1 Dedicated Seminars & technical Workshops on national level.		[Teal bar]		[Teal bar]			
37	7.2 Build institutional and legislative capacity to develop IMP policies and instruments.		[Teal bar]		[Teal bar]			
38	7.3 Provide "raw materials" for developing capacity-building tools.		[Teal bar]					
39	7.4 Setting-up logical cross-sectorial structures discussing maritime affairs.	[Teal bar]			[Teal bar]			
40	7.5 Identify case studies in maritime policy based on identified needs.				[Teal bar]	[Teal bar]		
41	7.6 Organization of training events, workshops, field visits, study tours.	[Teal bar]			[Teal bar]			
42	8. Annual Report on IMP- MED Progress & Maritime Activities in Jordan				[Red bar]			
43	8.1 Compile and publish every year an annual report on IMP- MED Progress & Maritime Activities in Jordan.				[Teal bar]			

ID	Task Name	2015	2016	2017	2018	2019	2020	2021
44	9. Formulation and assessment of projects in the field of integrated Maritime Policy, Maritime Governance, Monitoring of Marine Environment, ICZM, MSP, Marine Knowledge, Marine Surveillance ... etc							
45	9.1 IMP-MED steering Committee assists in carrying out studies with national and international consultants (IMP-MED Project key experts).							
46	10. Data Collection and Management							
47	10.1 Establish databases and collect relevant resource material to be eventually housed at the virtual Knowledge Centre (VKC) & EU IMP-MED Website.							
48	11. Implementation an Integrated Maritime Policy Communications Plan							
49	11.1 Enhancing IMP Visibility.							
50	11.2 Producing IMP Promotional Material.							
51	11.3 Communicating through the Proposed Website.							
52	11.4 Emphasizing the IMP Programme's Achievements.							
53	11.5 Utilizing Existing Corporate Media.							
54	11.6 Enhancing Internal And External Communication: Internally to the IMP Group & Externally to the IMP Regional Level.							

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