

Marine Spatial Planning in the Levant: Crossing the policy- planning divide

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הפקולטה לארכיטקטורה ובינוי ערים | המרכז לחקר העיר והאזור ע"ש קלצ'ניק



Marine spatial planning in the Middle East: Crossing the policy-planning divide



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ABSTRACT

Many countries have begun marine spatial planning (MSP) efforts in the past decade and much academic and professional literature reviews and analyzes these processes. Relevant research that can contribute greatly to new efforts at MSP compares efforts, both recent and historical, with ideals set for spatial planning processes. This research addresses the extent to which paradigms from the planning practice and the policy field can be relevant for the MSP context. It does so by analyzing the interim products of an MSP process addressing the Mediterranean Sea area in the waters adjacent to the State of Israel. Results emphasize the potential contribution of public policy analysis and planning to critique outcomes of the MSP process with the aim of improving outcomes and devising best practices. This type of analysis can inform MSP as it becomes an accepted practice as a mainstream tool in the field of environmental planning. The complexity and challenge of spatial planning when policy foundations are minimal is highlighted in the results.

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Portman, M.E., 2015 Marine Spatial Planning in the Middle East: Crossing the policy-planning divide, *Marine Policy*, 61: 8-15.

Portman, M.E. 2014 "Visualization for Planning and Management of Oceans and Coasts", *Ocean and Coastal Management* 98: 176-185

Portman, M.E., et al. 2013, "He Who Hesitates is Lost: Why Conservation of the Mediterranean Sea is Necessary and Possible Now", *Marine Policy* 42: 270-279.

Research aims


- Critique of interim products (~ midway) of Israel Marine Plan
- Improve the TIMP
- Devise best practices



Research Question (public policy)

Policy analysis

Planning theory



How do marine spatial planners move forward with minimal policy foundations?
(i.e., no oceans/marine policy)

Foundations

Policy

1. a course of action adopted and pursued by a government, ruler, political party, etc.;
2. action or procedure conforming to or considered with reference to prudence or expediency.

Planning (designation of spatially explicit uses)

Model	Main tenets	MSP relevance
Comp./rational	Science-technology based, planner is technician; dominant model	High
Incremental	Used for crisis management; political/environmental problems handled on case-by-case	Low
Adaptive	Anticipatory and dynamic, adjustments made frequently	High
Contingency	Risk assessment based; used for natural and man-made hazards	Low
Advocacy	Planning congruent with client needs/goals, related to conflict	Low
Participatory	Focuses on process, not outcomes; often bottom-up	High

About the Technion's Israel Marine Plan

Began in Dec. 2013

Med maritime space: ~26,000 km²,
30% larger than its terrestrial space
(includes 4,200 km² territorial sea)

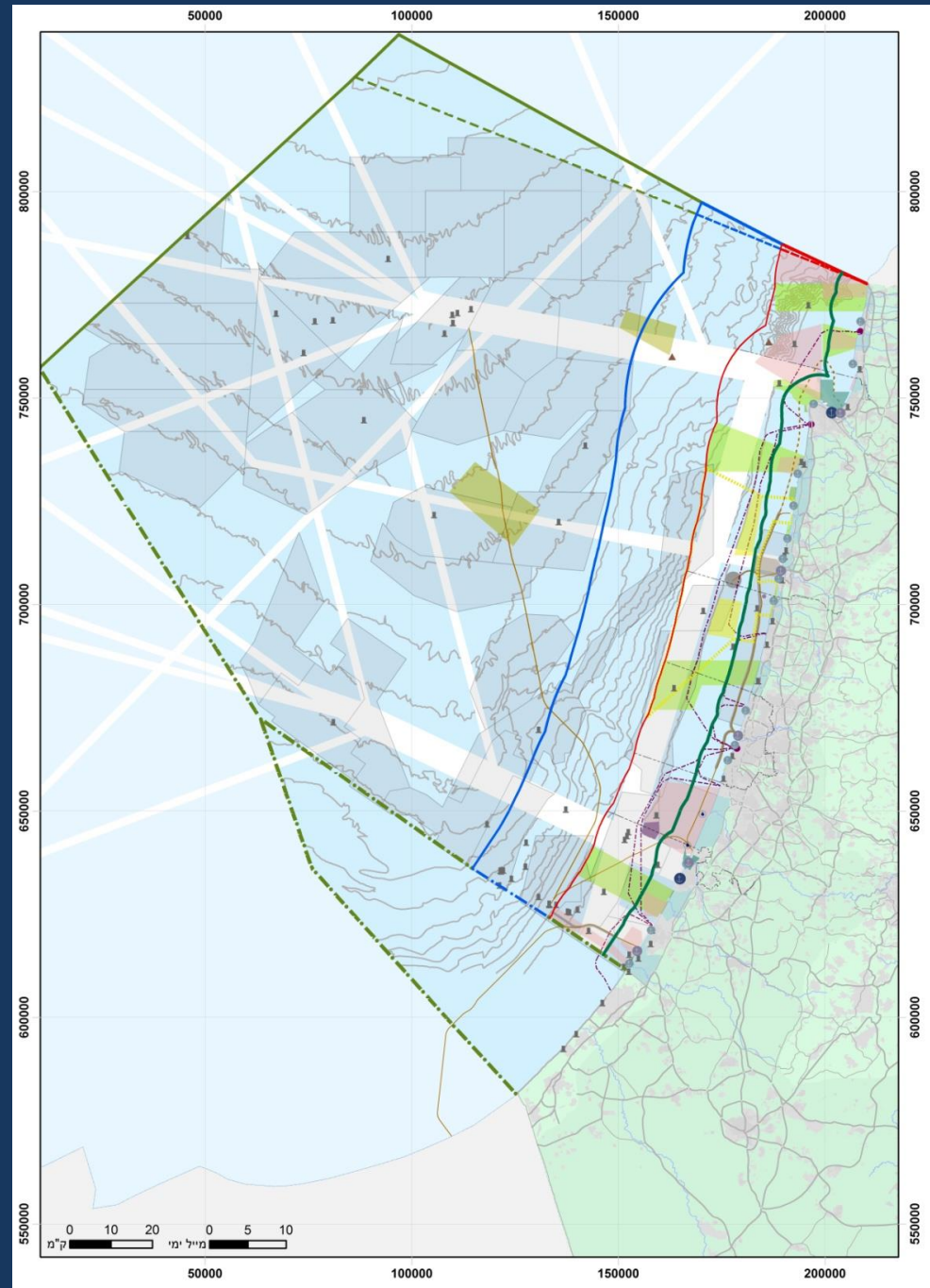
7 declared marine reserves: 28.5
km² in total

Estimated natural gas reserves:
1000 BCM

5 ports, 11,000 merchant ships a year,
98% of import and export (in weight) 7
marinas and 22,500 small vessel, 80k
boat licenses

2,200 mt fish/year, 2,400 tons
mariculture, 500 fishing boats

[Interactive Mapping Tool – The ASDA](#)



Planning Principles

- Emphasis on the process
- Wide base, multi-disciplinary and interactive
- Combining science and policy
- Joining planning and management
- Ecosystem Based Management (EBM)
- Future-oriented
- Space- and time-dependent
- Balanced and looks for synergies



Who are we?

Integrating team: Prof. Shamay Assif and Prof. Michelle Portman, Prof. Yuval Cohen, Dr. Ellik Adler, Dr. Idan Porat, Dr. Yael Teff-Seker and *Ethos* consultancy company. Aided by graduate research students

Professional Experts – From academia and the private sector, on the topics of environment, infrastructure, natural resource economic, marine sciences, etc.

Stakeholder Forum – government ministries, local government, public and private sector unions and representatives

Scientific Committee – academic and scientific organizations

International advisory committee - MSP experts

Method: thematic analysis focusing on “means”

Codes search for:

Policy means – legislative, regulatory
development measure, change in behavior

Spatial-oriented means/measures – “siting”,
identification [of area], spatial allocation,
plan development [assuming “layout”]

9. Addressing the effects of climate change on the marine and coastal space

The Mediterranean has long been recognized as a hotspot where climate change impacts manifest more intensively than elsewhere. Recent assessments by the Intergovernmental Panel on Climate Change predict climate change effects in the Mediterranean region for the period 2081-2100 (compared with 1986-2005) in the form of a 2°-4° mean air temperature increase and a 10%-20% decline in rainfall. A 2010 report on the dangers to which the coastal cliff is exposed projected that the sea level on Israel's Mediterranean coast would increase, by the year 2100, by 1-1.4 m. Similarly, the coming decades are expected to witness substantial increases in the water temperature, salinity and acidity of the eastern Mediterranean. ICLR National Monitoring Program findings for 2013/14 on climate change support the aforementioned projections regarding sea level rise, warming, increased salinity, acidification, changes in the flow regime and in the regime of fertilizer transfer from shallow water to open sea in Israel's marine space. These are changes of the highest significance and will have far-reaching environmental ramifications.

Additional risks related to climate change in Israel's coastal areas include increased frequency and intensity of flooding, erosion and a dearth of alluvium, flooding of estuaries and low-lying areas, groundwater impacts and aquifer salinization. In more extreme scenarios, the sea level rise would also hasten the collapse of Israel's coastal Eolianite ridges, the intrusion of sea-water into estuaries, and damage to naval facilities and national infrastructures such as ports. The anticipated seawater temperature rise could also potentially increase the intrusion of invasive species from the Dead Sea and Africa's Atlantic coast, and harm abrasion platforms along the coast.

Proposed policy measures

- Include a chapter devoted specifically to ways of addressing climate change impacts on Israel's marine and coastal space in an envisioned comprehensive national plan for coping with climate change.
- Continue to advance research, information and knowledge regarding the effects of climate change on the marine and coastal space, including assessment of the impact of climate change combined with other stressors on ecological, economic and social systems.
- Consistent assessment of Israel's commitment to regional and international conventions and arrangements that touch on the issue of adjusting to climate change and mitigating its effects.



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Findings

Goal	No. of means	
Improve governance of the marine area	6	6
Advance marine scientific knowledge, promote data generation and its accessibility	12	11
Protect, preserve and restore the marine environment	9	8
Develop sources of energy in the marine area while exploiting them wisely and cautiously	7	5
Develop marine transportation and ports	7	5
Promote sustainable development of food sources from the sea	8	5
Promote cautious and sustainable use of the marine area as an alternative to land uses	5	3
Integrate security needs within planning and management of the sea	6	3
Prepare for global climate change (CC) impacts (including uncertainty) affecting the sea and shore	7	5
Establish the sea as part of the public domain for the welfare of the people	7	6
Discover, protect and enhance the cultural and heritage values of the sea	6	6
Develop the role of the sea as an opportunity and bridge for international cooperation	3	3

The 12 TIMP goals. Those in bold are the more policy oriented goals based on a analysis of the means. In red are the number of policy-means (the black numbers indicate total means/mechanisms for each goal).



“MSP not particularly spatial”

General conclusions:

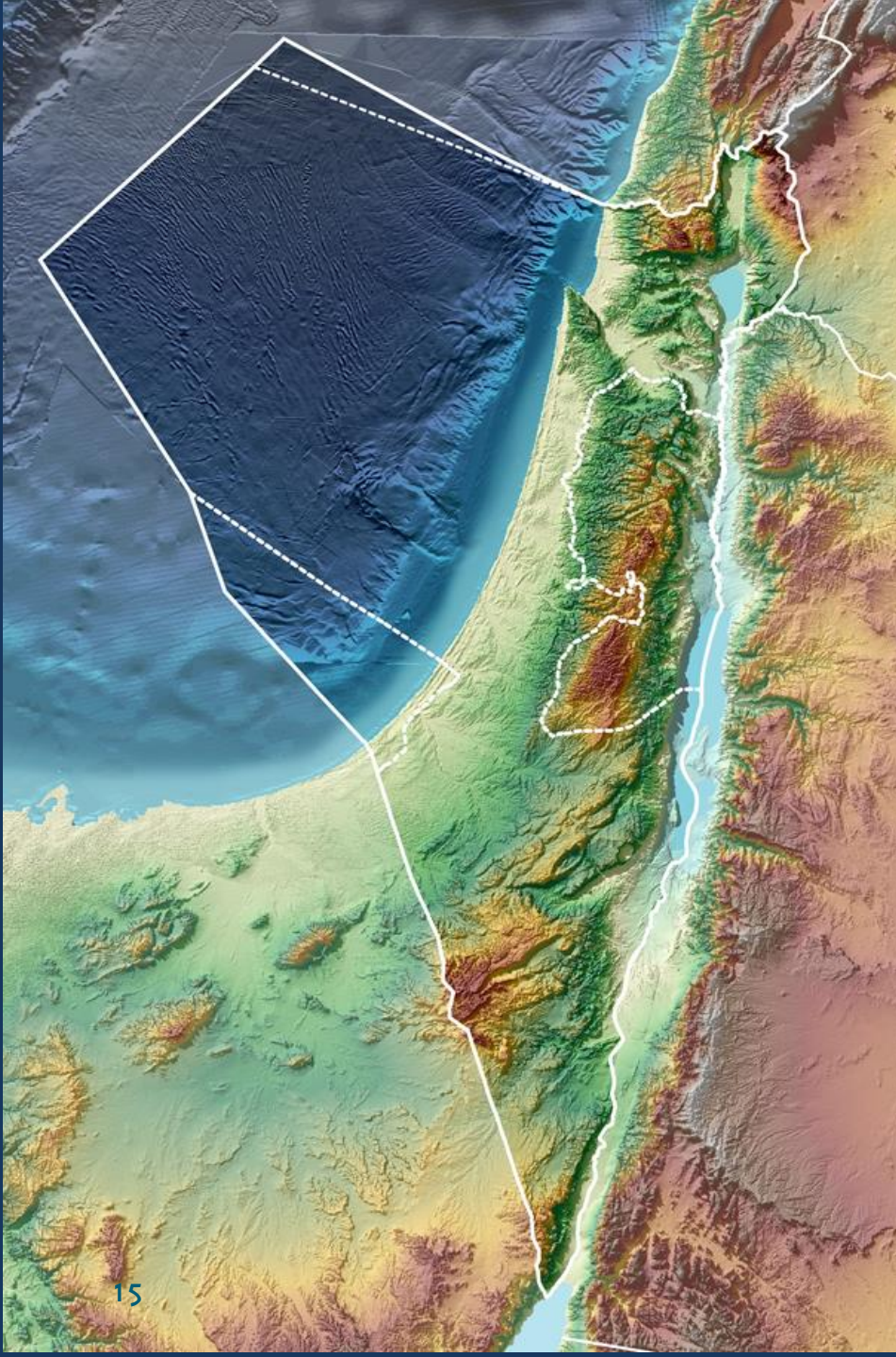
- MSP is distinguishable from traditional planning approaches
- Two major parts: policy-heavy & spatially oriented part
- Policy analysis an appropriate framework for determining success/evaluating interim MSP interim results

More conclusions:

Specific conclusions:

- The TIMP process does not conform to Ehler & Douvere's definition* of achieving objectives: “specified through a political process”.
- Since “oceans policy” is lacking, policy heavy stages come before the spatially-heaving stages in the planning process.

*Ehler, C., and F. Douvere. 2009. Marine Spatial Planning: A step-by-step approach toward ecosystem-based management. Paris, France



"We should view the Mediterranean Sea not as our country's border but as its continuation. The seashore is not where our country ends but only as its continental extent..."

Ben Gurion – Towards the Sea, 1932



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