

Maritime Spatial Planning Challenge Edinburgh Edition

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Government of the Netherlands

Signature Games



ABOUT THE GAME

The 'Maritime Spatial Planning Challenge - Edinburgh Edition' is a playful learning experience – a 'table top strategy game' – designed for policy-makers and strategists working in the area of ecosystem based Maritime Spatial Planning (MSP) and the development of sustainable Blue Growth.

The game is loosely based upon the 'Maritime Spatial Planning Challenge' (www.mspchallenge.info). It was originally developed by the same team, at the request of the Netherlands' Ministry of Infrastructure and Environment (I&M) for the occasion of the High Level Group Meeting on Short Sea Shipping under the Netherlands EU Presidency 2016 (Amsterdam, the Netherlands, February 15, 2016). It has been further developed for the Scottish Coastal Forum's 20th Anniversary conference (Edinburgh, UK, 10 March 2016).

GOAL

The goal of the game is to show some of the dynamic and complex interactions between marine-related activities and Maritime Spatial Planning (MSP), accommodating the strategic objectives of Blue Growth and achieving Good Environmental Status (GES). The game has been developed in light of the EU Directive (2014/89) on MSP and the opportunities its implementation gives for marine planning at different levels in EU Member States.

The game should get players 'thinking and talking' about the interrelations between MSP, Blue Growth, GES and marine-related activities.

LIMITATIONS

The game has not been designed as a near-real planning exercise or decision support tool. Although it is a metaphor for Maritime Spatial Planning with a fictional narrative, stylized maps, playful tokens and a minimum number of game rules, it should be used to shape a strategic dialogue among professionals in the field.

QUESTIONS

The discussion in and after the game should be geared towards questions such as:

- Where and how do MSP and marine activities reinforce each other?
- Where and how do they get into each other's way?
- Are marine activities and land-sea interactions sufficiently taken into account in MSP processes and by responsible authorities?
- What can be done to improve the alignment between MSP and interests that make use of coastal and marine resources?

THE CHALLENGE

The main challenge for the players is to achieve Blue Growth (BG) and Good Environmental Status in their national and shared marine areas through the spatial allocation of economic and ecological functions, and the development of marine-related activities. This is done by placing tokens on the game board. The tokens symbolize all kinds of human activities, ecological functions and marine industries.

Participants represent different interests and they may gradually find out that they get into each other's way, more often than not. For example, existing shipping lanes block the planning of new Marine Protected Areas so marine planning necessitates a redirection of shipping lanes and shippers and planners in and between the countries need to coordinate and co-operate.

THE MAP

The game is played in the fictional marine area called the 'Rica Sea',¹ represented graphically on a large table top game board (1.60 x 2.80 m), with a stylized map of the fictional area.

The map shows a few parameters that planners should take into consideration while planning their economic and ecological functions, such as sea depth (light, medium and dark blue). Wind farms for instance can only be placed in light and medium blue areas, not white areas (deeper than 50 meters).

Furthermore, the already map shows a few 'hot spots' to be developed during the game, such as sea and inland ports, cultural sites, wrecks, birds, whales etc. Distances to shore and ports are important for wind farming and dredging. Sea depth is important for wind farming. There already are a few major international shipping lanes...but most of the sea area is remarkably underdeveloped.

BACKGROUND CONTEXT

Bayland, Peninsuland and Island are three adjacent local authorities within Terra Rica, a country with considerable marine assets and some of the most productive and diverse coastal and offshore areas in the Rica Sea.

Rivers, islands and coastal areas characterize the Terra Rica sea basin and the Rica Sea. The Bayland, Peninsuland and Island local authorities have a shared maritime and coastal heritage and it shows. One brief look on the map and you can easily understand why past generations of inhabitants and visitors named the sea the Rica Sea. Sea borne trade and raid have had their impact on the societies. The relatively shallow Rica Sea feature challenges for sea farers and off shore construction during parts of the year. Its relatively sheltered location on the globe, proximity to nearby countries and ocean trading routes offer a wide range of natural resources to work with.

A National Marine Plan for the extended Rica Sea was published in 2015 with the vision of ultimately enabling "clean, healthy, safe, productive and diverse seas managed to meet the long term needs of nature and people". The Marine (Rica) Act of 2010 requires that Marine Plans set economic, social and marine ecosystem objectives as well as objectives relating to the mitigation of, and adaptation to, climate change. It is expected that the successful implementation of the Marine Plan's objectives will facilitate Rica's contribution to wider marine environmental goals, such as the achievement of good environmental and ecological status under related policy frameworks.

¹ Rica Sea = Anagram for Rivers and Coastal Areas. Used with permission of EP Intergroup on IMP SEARICA Seas, Rivers, Islands and Coastal Areas.

The national Marine Planning Authority, MarineRica, has stipulated that a number of Marine Regions shall be created to enable more localised plans to be prepared, which will complement and augment the National Marine Plan's objectives in relation to particular geographic areas. The Marine Region encompassing Bayland Municipality, Peninsuland Local Authority and Island Council is the first such region to be designated. The local authorities around the sea have only recently agreed to start planning their shared uses of the sea, by allocating functions to marine space over time.

NATIONAL MARINE PLAN (NMP) OBJECTIVES

The NMP stipulates a core set of General Policies, which underpin sustainability of use and development of the marine environment. They apply across all existing and future uses and represent the balance required between social, economic and environmental requirements.

In addition, Sectoral Policies have also been developed to consider issues specific to particular marine industry-related activities. These relate to aspects of management to support economically productive activity or in relation to interactions with other users. They also relate to environmental limits and implications of climate change.

All decision-making is subject to the General Policies as well as the Sector Policies, where these are relevant.

LOCAL OBJECTIVES

Each of the three Local Authorities is geographically different with separate priorities arising from their physical, social and cultural characteristics.

Terrestrial planning authorities are required to give consideration to marine plans when developing strategic and Local Development Plans for their areas. Alignment between marine and terrestrial planning is important and should be achieved through consistency of policy guidance, plans and decisions.

BAYLAND MUNICIPALITY

For some the world ends at the coast, for others it's the beginning of the world.

Key policy priorities: land-sea interactions, multi-modal transport connections to transfer freight from road to rail, energy transition and stakeholder engagement.

Particular local objective to develop short-sea shipping routes that facilitate connections with hinterland and inland waterways as freight is expected to grow rapidly; target is to make that growth happen at sea as much as possible. LNG is the preferred fuel for short sea shipping.

Objectives in Blue Growth focus on beach and nautical tourism, cruising and on wind energy.

PENINSULAND LOCAL AUTHORITY

Humans do not live at sea.

Key policy priorities: multiple uses of space (co-location of activities), shipping & accessibility and investment in marine-related infrastructure.

Particular local objective is to shorten transport routes at sea, provide for opportunities combining offshore functions with shipbuilding. Decision might be made to remove the locks from the Peninsula canal, thus facilitating passage of traffic between eastern and western port facilities.

Blue Growth objectives are cultivating fish and seaweed, clean energy and tourism. Cultural heritage on land and in the sea is seen as key to provide growth in this sector. A LNG terminal could be constructed in the main port.

ISLAND COUNCIL

Blue growth happens in a blue environment.

Key policy priorities: protect our resources, build with nature and innovate.

Particular local objective is to safeguard accessibility of the Islands and secure lifeline ferry routes as well as becoming a world leader in sustainable fishing and in the super yacht industry.

Blue Growth opportunities are blue tourism (like diving and whale watching), deep sea mining and blue biotechnology. This calls for active and enhanced protection of marine life.

YOUR CHALLENGE

You are to work with your colleagues to develop an initial, high-level Regional Marine Plan for your part of the Rica Sea that complements the National Marine Plan's objectives but reflects the geographic specificities of the Bayland, Peninsuland and Island area.

You are a participant in the overall marine planning process; either as a marine planner for one of the three local authorities or as the representative of one of the stakeholder groups with an interest in the area.

MarineRica expects that you will participate in open and engaged discussions that result in agreements within individual local authority areas about their own priorities AND with the other two authorities so that their proposals do not adversely affect your own, or vice versa. Transboundary agreement should be achieved over the positioning of developments, including supporting infrastructure such as pipes, cables and shipping routes that may run through adjacent water bodies.

At the end of the session you will be invited to give your feedback on the role of the game-playing approach to the Open Forum.

HOW TO PLAY?

We will play a short version of the game, taking around an hour and involving around 24 players divided into 3 teams.

Players assume the roles of planners (1-2 per team), nature conservation advisor or a representative of a marine-related activity (ports, shipping, fisheries, aquaculture, marine recreation and offshore energy). The purpose is to design a Maritime Spatial Plan (MSP) by putting economic and ecological functions on the game board.

Planners should try to get as many tokens and of different types on the game board, thereby promoting Blue Growth and/or Good Environmental Status.

The representatives of the different marine industries and activities should seek to promote their interests within the Marine Region in line with the National Marine Plan's policies.

- All players have an asset box with the tools to play the game. Planners have a quantity of coloured squares with symbols showing their function and a large quantity of pins. Rolls of thread in different colors indicate the different sorts of sailing/shipping activities that take place in the area. They can be tied around the pins to delineate navigational routes.
- Planners develop economic and ecological functions of the Rica Sea by placing the corresponding tokens onto the grid, using pins. Hot spot tokens already on the game board and opportunity maps give some direction on how to develop the marine area. Certain economic and ecological functions can be combined, whereas other functions conflict with each other.
- Representatives of marine industries within the different areas should consider how their interests might be best served across marine planning boundaries. Planners should also discuss the best positioning of activities in the Rica Sea as well as in their own authorities' areas.

Example: Shippers are eager to develop short sea shipping and related upstream/downstream activities. In the game, this is done by developing shipping lanes between ports (e.g., ferries, goods) and between ports and marine activities (e., fishing, wind farm construction and maintenance, etc.).

Shippers should try to get as many thread-pin connections and / or different types onto the game board. Straight lines have more value, since each angle in a line reduces the value (efficiency) of the shipping lane.

Economic functions (such as wind farms) placed on the game board induce short sea shipping (e.g., construction and maintenance). All economic activities in the Rica Sea need to be connected to a port. This is why planners need to coordinate with shippers.

For ecological or other reasons, such as safety, certain economic activities and shipping may conflict. Hence, shipping lanes may not go through marine protected areas, wind farm, military zones. Existing or potential conflicts need to be resolved in a discussion among planners and shippers.

STEPS OF PLAY

1. Players stand around the table / game board with assigned roles.
2. Moderator gives 5-7 minute play instructions.
3. Timer is set on 5 minutes.
4. Planners and nature conservation advisors are asked to take 5 minutes to decide which economic and ecological functions they want to place on the map.
5. Marine industry representatives are asked to start proposing where there would want to see developments relating to their interests.
6. After 5 minutes has passed, planners step forward to the game board and place their tokens, talking out loud to explain what is placed and why.
7. After 5 minutes, all players step back from the map, and observe the result. Potential conflicts are discussed and if necessary they are resolved.
8. The game cycle starts again from 3.
9. Play three or four rounds, until players are done, or it's time to stop. Take 5-10 minutes for debriefing; focus on result and process.
10. In subsequent playing of the game, jump forward 5-10 years in time and see what impact climate change and other drivers might have on similar decisions relating to marine planning within this area. Will activities remain in the same places? If they have to be relocated, how will changes be accommodated?

RULES OF THE GAME

1. Every economic function should have at least one pin that is connected by at least one threat to at least one port. Otherwise it is still undeveloped.
2. A few placement rules:
 - Real life logic is applicable to the Rica Sea. For instance, wind farms cannot be placed in deep water (white zone). Players are encouraged to bring such arguments from real life into the discussion to convince others.
 - Different ecological areas can be planned: habitat areas, bird areas, habitat and bird areas, and marine protected areas.
 - Fisheries take place at the entire Rica Sea except where it is prohibited.
 - Economic activities such as oil and gas extraction, seabed mining, should be planned in areas where these resources are available as indicated on the game board or opportunity maps.
 - Aquaculture and wave energy can be combined with other functions, such as with wind energy.

- Coastal tourism can take place at the entire Rica Sea. Some areas are however more suitable than others.
 - For safety reasons only sailing and fishing boats no longer than 24m are allowed within wind farms. Planners can decide to change this policy.
 - Shipping lanes can be redirected with permission of the International Maritime Organization, played by G.O.D.
 - Co-use of military areas is possible, but permanent structures cannot be combined for safety reasons.
 - The Treaty of Rica is forcing countries to protect the underwater cultural heritage in situ.
3. Anything in the game is allowed as long as it has not been forbidden by the game facilitators and it is plausible, functional and acceptable within the rules and the spirit of the game.
 4. The Game Overall Director (G.O.D.) in consultation with the game facilitator, has the authority to give information, decide or intervene in all matters that are unclear or not provided for in the game, such as playing the role of EU, IMO or any other institution or authority.

PERFORMANCE

The performance of the MSP planners is calculated by the amount of squares that they place on the map, by the end of the game, as well as the variety of squares that they use.

For each country, the game masters know the number of tokens at the start of the game. To get an indication of performance, the players can be asked to count the number of tokens (all, for each colour) at the end of the game.

In a short game session, there will probably not be enough time to calculate the performance of planners and shippers, but one can get a rough indication, sufficient to start up debriefing and discussion.

Ecology points - Number of pin holes covered by ecological functions, MPA, wind farms, blue energy and recreation.

Economy points – Number of pin holes covered by economic functions: oil & gas, dredging, fishing. For shipping: number of pin holes used for shipping lanes from port to port or from port to MSP function vice versa, minus the number of connection points that constitute an angle on that shipping route. In other words, straight shipping lines award more points than diversions.