

Contact

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Pegaso Project
People for Ecosystem based Governance
in Assessing Sustainable development of
Ocean and coast

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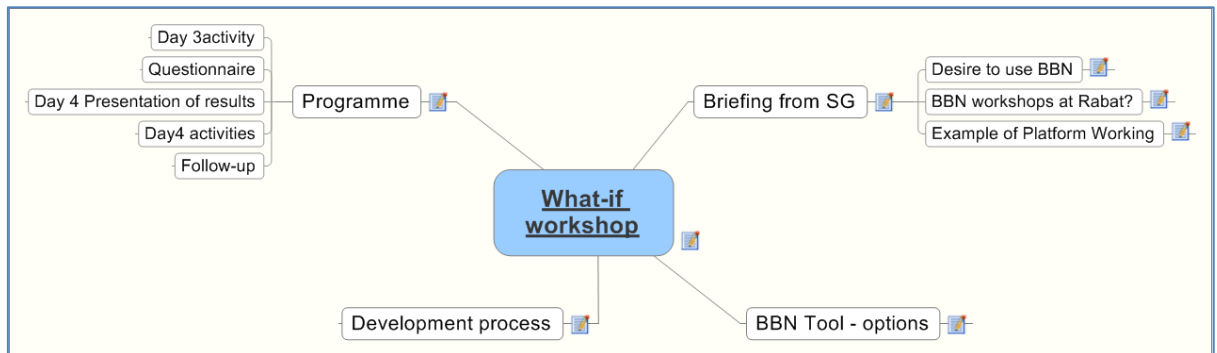
PEGASO Project
'What-if' Modelling Workshop

Minutes

12-13 February, 2013
CEM, University of Nottingham, UK

Participants:

P1 (UAB)	Françoise Breton François Morisseau
P4 (U of Brest)	Pascal Raux
P6 (IOC-UNESCO)	Francesca Santoro
P9 (UNOTT)	Roy Haines-Young Emil Ivanov Marion Potschin
P12 (JRC)	Adolf Stips
P16 (DDNI)	Iuliana Nichersu
Apologies	PAP/RAC



The agenda circulated before the meeting was followed. The aims of the workshop in Rabat were developed during the sessions and agreed at the end. The mind map shown above provides an overview of the discussions. The main outcomes were as follow below.

1 Aims of workshop in Rabat were agreed as:

- To articulate what balanced urban development and protection of NC means
 - and how to measure them qualitatively and quantitatively in terms PEGASO indicators
- To give people experience of using participatory processes to develop influence diagrams
 - Insights into causality and key responses
 - to introduce BBNs and identify those people who are interested in taking it further
- To given people insights into how PEGASO tools might be linked
- To give people insights into two articles of the Protocol
 - How they could work
 - The barriers and threats

2 Agreements deriving from the discussions

It was agreed that the “What-if” exercise will only be a part of what is planned to be achieved in the Rabat workshop (see aims above), hence it was agreed that the title for the workshop should be different from “What-if workshop”. The following title for the workshop was suggested:

Implementing ICZM – exploring the barriers, opportunities and options

It was agreed that the Rabat workshop would not lead to the creation of a set of scenarios, and that it was but one element in the PEGASO tool box. Although it can help people see how tools can be integrated it was agreed that it was not the 'integrated tool box' envisaged in T4.6.

It was also agreed that the wrap up session (organised by Françoise and Denis) should put the workshop in context and to describe what the future process in PEGASO would be.

It was agreed that the outcomes of the workshop should be designed to help people take the what-if approach further for themselves.

The mind-map captures the conclusions of the other parts of the agenda circulated the key conclusions/topic covered were:



3 Briefing from SG

FB explained that the SG felt that in Rabat:

- We could have a participatory exercise of using the BBN..... simulation of how the platform could work - how actors work together, BBN just a tool
- "What-if exercise" will help to identify messages/difficulties/barriers to involvement of actors etc to work together
- Problems of linking science and decision making.
- Need to give strong messages to the Commission....
- The meeting needed to develop a PEGASO storyline/set of messages

3.1 Desire to use BBN

FB reported that Turkey and Lebanon interested in local and national applications of what-if approach possibly using BBN

3.2 BBN workshops at Rabat?

FB suggested that the initial ideas discussed at the SG were that:

- Two groups- one on oriental and other on occidental med. Black sea people being into the 2 groups
- Two days for users and two days for project team
- days 1-2 internal work (40-50?)
- days 3-4 stakeholders/end users?(10?)
- How to organise? People have to be active
- PAP/RAC want to demonstrate capabilities of platform
- BduR Case Study - how to link?

3.3 Example of Platform Working

SG expressed interest in understanding:

- What can BBN do and not do?
- What role does it have in the platform?
- BUT the workshop outcomes should be risk free! as far as possible
- UNOTT did not fully understand how the what-if workshop informed, or help build, the 'governance platform'

4 BBN Tool - options

UNOTT explained the different roles that BBNs might play in supporting deliberative processes. They included:

- Visualisation
- Demonstrate what is known and where the gaps are (e.g. models, data)
 - Identify data needs...
- Demonstrate what is believed and how perspectives differ between actors in terms of causal links, e.g. main threats
- Explore the consequences of different assumptions
- types of urbanisation and impacts and where

- types of design and planning strategies
- Tool to link other tools?
- Tool to wind-tunnel response options under different scenarios, decision support [Note from FB: If not used in Rabat it is important to know how this might function for developing scenarios)
- Sensitivity analysis
- Spatial modeling - by linking to GIS - equivalent to capability/site suitability mapping etc.
- Downscaling scenarios/drivers etc?

UNOTT also stressed the LIMITATIONS of BBN, these will be elaborated further in the briefing paper on BBN:

- no feedback
- not dynamic
- must be simple - problem of uncertainties

5 Development process

The broader context of the workshop was discussed and key questions were:

- How is the workshop part of scenario building? At best it represented a limited set of story boarding activities...
- How does it relate to ICZM Protocol?
- How does it help implementation of Protocol?
- It was agreed that a clearer picture is needed of how the 'what-if' workshop fits into the overall development of the WP4 tool box and the platform.

6 Programme

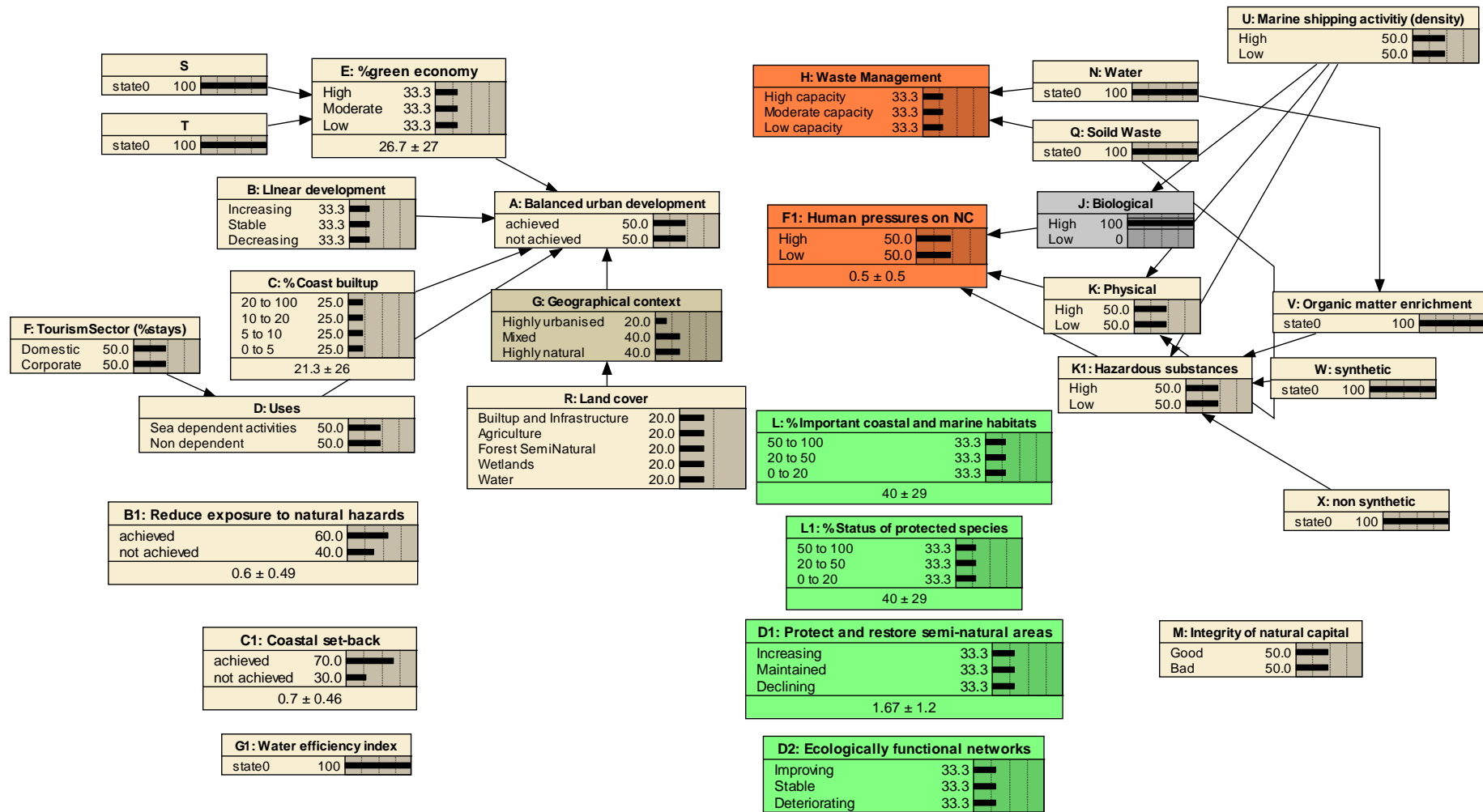
The issues discussed were the need to:

- Build on Arles results etc.? And experience of cases e.g. Romania exercise/experience?
- Need to ensure ownership of the process amongst delegates
- Refine what has been done prior to the workshop get people to modify etc.
- Keep focused etc..
- Cope with different levels of prior knowledge
- Capture expertise/experience of people involved
- Time frame for analysis (20years?) [Note from FB: Should be in line with timing for Protocol implementation on one hand and long term vision of the ecosystem conditions on the other Need to be decided.]
- How can we structure the session?
- Who lead what and who contributes to it?
- Facilities in Rabat
- Internet etc.?
- Breakout rooms
- Large room - laid out ball room style
- Voting system

A draft of the workshop programme for days 3 & 4 of the Rabat meeting was created - see attachment 2. The programme was developed in the assumption that UNOTT (RHY/MP would arrive on Day2 in the late afternoon).

The meeting concluded with a more wide-ranging discussion of the PEGASO work programme and the vision for the end of the project. These are summarised on the attached flip chart photos (in Appendix 3.). [Note from FB: I have proposed some changes on it as this discussion will be part of the internal 2 days work in Rabat)

Appendix 1: BBN Developed during the workshop – to be organised and developed



Appendix 2: Draft Programme for “exercise” (workshop) on day 3 and 4

This agenda has been altered by Steering Group members after this meeting and is now matter of the RABAT preparation and will not further changed within these minutes.

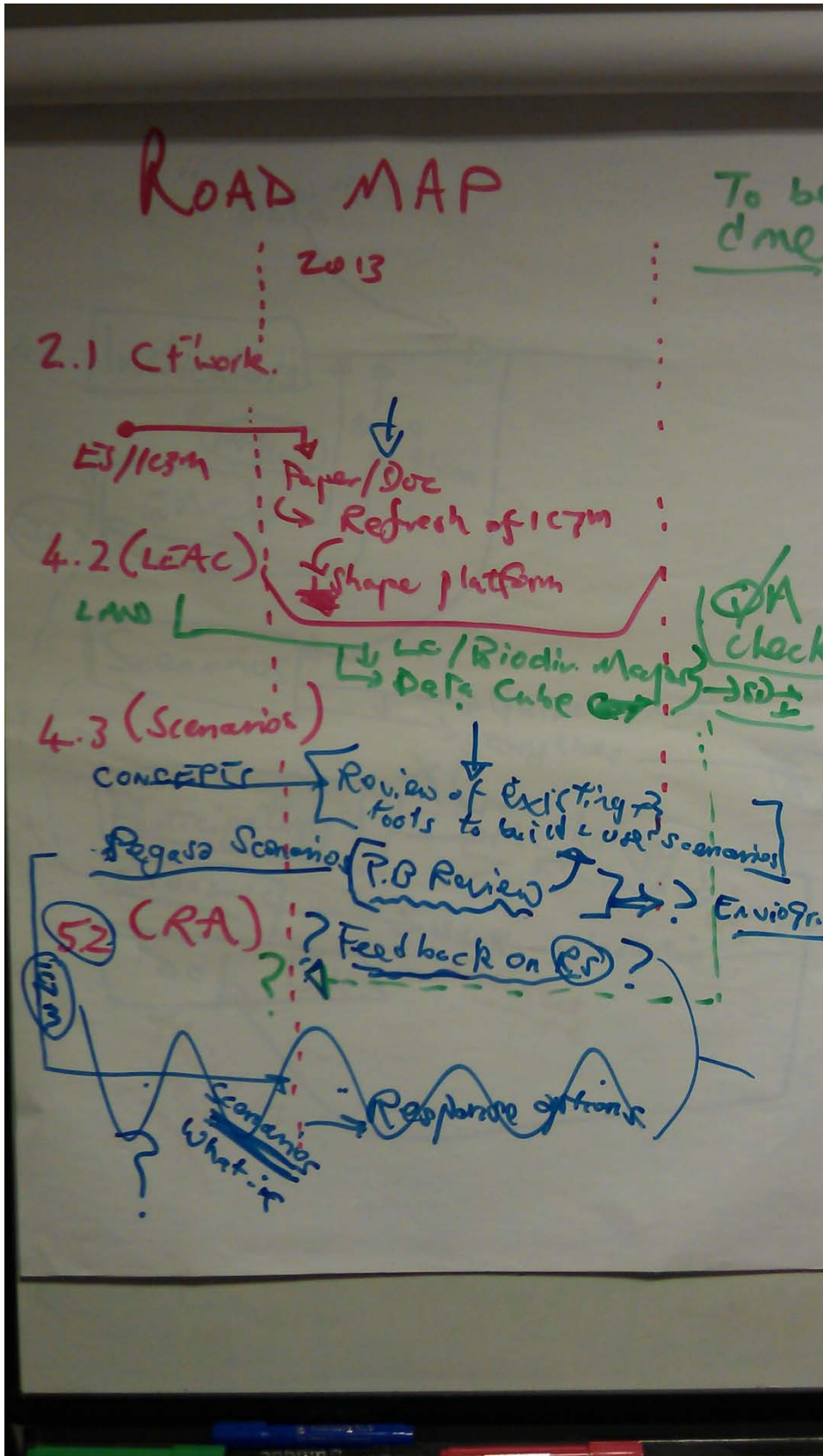
Thursday 21.3		
Implementing ICZM – exploring the barriers, opportunities and options		
8.00	Briefing Session for facilitators	Denis to lead, UNOT to assist, facilitators to be drawn from those attending Nottingham WS plus Denis, and others – 10 needed and to be indentified
9.00-10.00	SDI and Indicators and LEAC	VLIZ and IOC, UNOT
10.00-10.30	Introduction to WS	Denis
10.30-11.00	Coffee brake	
11.00-01.00	<u>Exercise part 1:</u> Network building exercise – aim create a network using a predefined set of indicators etc with the focus on balanced development and natural capital	Denis to ‘Chair’, keep time etc. One large group (groups of 5 or 6 around tables perhaps by language and/or region); Allocation of groups - Francoise, Julien and Denis. Briefing materials needed: Protocol (PAP/RAC to summarise in 1 page?) and Indicators (Fact sheets on Intranet – stakeholders?) and distribute before? Who is leading this? Denis? Create exercise materials (UNOT) One of the steering group at each table to facilitate
1-2	Lunch	
2.00-2.15	Briefing Session	Denis
2.15-4.30	<u>Exercise part 2:</u> Use networks to explore impacts of different stressors etc.	Same structure as in morning... but to discuss important factor, Impacts and their drivers, main stressors being able to affect the rich image, etc. which variable can be controlled/uncontrolled (managed/difficult to manage). What-if exercise Need to create exercise materials (UNOT) One of the steering group at each table to facilitate (identifying drivers stressors in a time frame (10 for Protocol implementation, and 25 years including uncertainties?), looking at how intensity of pressures can be different in each geographical settings, etc.
4.30-5.30	Review and questionnaire	Parallel activities: Internet – questionnaire (Paper backup)→Need to be prepared before Rabat and review during Rabat sessions to incorporate new elements. UNOT to organise Walk around –see what others did- one group members explains etc. Roy & Denis to facilitate Coffee served during this time
5.30 Close	UNOTT + 2 or 3 people will analysis questionnaire and prepare report for next day	
Friday 22.3.		
Implementing ICZM – exploring the barriers, opportunities and options, cont.		
9.00-10.00	Introduction Presentation of Questionnaire Results and BBN Tool	Pap/Rac: explain rationale why to do BBN > Protocol agenda and how it could help , contextualise the exercise (10 min) UNOT to provide report back on results and show BBN concept and application (for 10 years and 25 years?)
10.00-10.30	Discussion	Chair Denis – NOT UNOT – UNOT to be available to answer questions
10.30-11.00	Coffee	
11.00-12.30	Exploring the networks exercise	In Groups as on Day 1 <ul style="list-style-type: none"> • Compare precooked BBN with the Day 1 model • Use BBN to explore Day 1 stories • Facilitators have BBN on their laptops and let people play



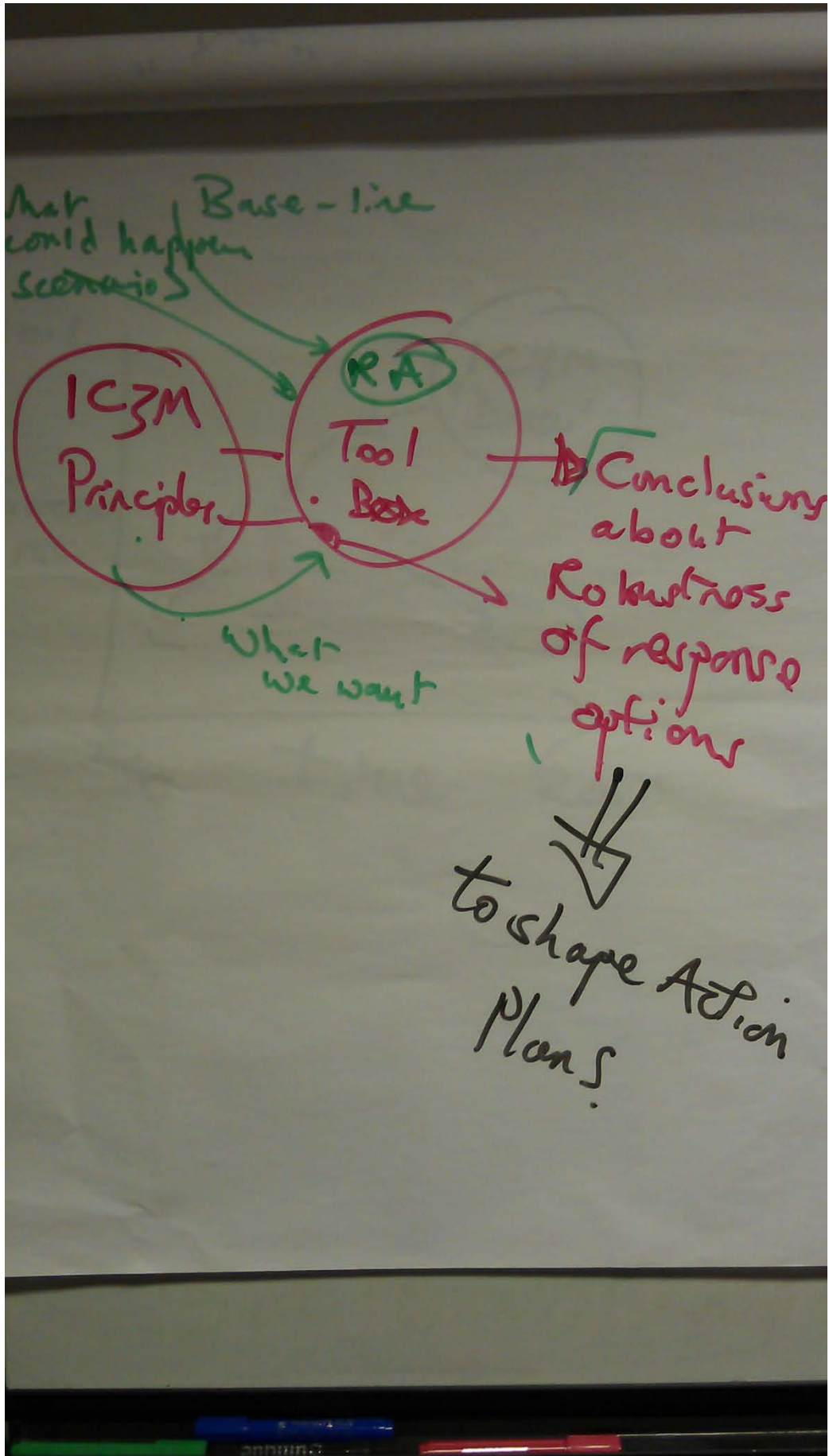
		<ul style="list-style-type: none">• Discuss role of what if in decision making• What does this mean for designing action plans?
12.30-13.00	Wrap up and introduce longer process in PEGASO	Recall what can be the main threats and management priorities in BS, oriental med and occidental Med Explain mechanism to follow up BBN (at different scales, for different regional seas, how it could be used for ICZM developments to get a long term vision, etc) how it will link with the other tools and get more quantitative Next steps till end of PEGASO project
13.00-14.00	Lunch	
14-16h	End users session (Julien/Françoise)	Debriefing PEGASO work plan and roadmap with EU until end of projects
14-16h	UNOT internal session	Debriefing on what has been agreed during 2 first days on these deliverables and work out 2.1; 4.6 and 6,2 (shared work plan and agenda)
14.00-1600 (3parallel sessions)	BBN Surgery Session (UNOT)	to help cases take their work forward at local scales and eventually for Black Sea. – only guidance provided, discuss how training can be organised on virtual forums – there are no travel resources for UNOT to work



Appendix 3: Roadmap for PEGASO final year as seen from UNOTT. Note: FB asked Nottingham how they would see the next steps, progress for the Project out of their deliverables but also in general.









Appendix 4: Original Agenda and background material as circulated and agreed before the workshop

<p>Aims for the meeting</p>	<p>To review the different ways that scenario tools can be used to support final phases of PEGASO, in the context of:</p> <ul style="list-style-type: none"> • Providing briefing materials and guidance documents for the PEGASO Platform that people can use scenario tools for their own work; • Using ‘what-if’ modelling tools to stimulate thinking about the implementation of ICZM across the two basins; • Agreeing what needs to be achieved at the Rabat meeting and what the final outcome of these future discussions will be; and, • Agreeing how existing scenario work supports the Regional Assessment.
<p>Background</p>	<p>The meeting was requested by the coordinator to bring together the outputs of Mediterranean Regional workshop (Arles, November 2012) and the Black Sea workshop (December 2012) and agree on how to organise a ‘participative scenario’ event at the Rabat. It was suggested that the latter should explore what the PEGASO community envision for the next 20/60 years and obstacles to the implementation of the Protocol in the Med and any similar policy framework in the BS.</p>
<p>Issues to consider</p>	<p>Given the background set out above, it is important that we agree how the work stream leading up to RABAT fits into the scenario work package and the other activities in WP4 etc. In Table 1 we have identified some of the ways in which scenario tools are used and described how they potentially link to activities within PEGASO. The issue that has frustrated the scenario work in general is that there are different conceptualisations and expectations about what scenarios involve and what they are used for. The bottom line is that they have many purposes, and since we cannot (and do not need to) explore all of them we have to agree what the focus of work in the remaining stages of PEGASO is. Thus we need to:</p> <ol style="list-style-type: none"> a. Resolve the ‘legacy issue’ – i.e. agree what documentation to provide so that the PEGASO community can use scenario thinking beyond the end of the project. b. Resolve how the collective ‘future thinking’ in PEGASO can be captured and developed as a stepping stone to taking ICZM forward. <p>We suggest that the main purpose of the workshop is to focus on b. If we take the ways scenario thinking can be used that is summarised in Table 1, then it is clear that to a large extent we have already identified a ‘desirable future’ which is a world in which ICZM principles are fully implemented. Given that this is a common agreed goal of PEGASO it is not clear what further participatory activities would achieve, <u>unless</u> we conclude that on the basis of the ARLES and BS workshops that this vision is insufficiently well-described. For example, we could articulate the vision in more detail by:</p> <ul style="list-style-type: none"> • Selecting from the PEGASO indicator set those metrics which best capture implementation of the different aspects of ICZM; • Agreeing what the targets for these indicators are under this desirable future (i.e. agreeing what ‘success’ would look like in the context of these indicators); and, • Identifying what the barriers to achieving this desirable future are in different social, political and geographical contexts across the two basins. <p>We propose that this is probably the key task that should be tackled at Rabat. This leaves open the question of how formal the ‘what-if’ modelling requirement should be. We have a number of options here. The simplest is to:</p> <ul style="list-style-type: none"> • Take each relevant PEGASO indicator and during the workshop at Nottingham and Rabat construct a casual chain (cf. DPSIR) that helps people understand what could influence the outcome; and,

	<ul style="list-style-type: none"> • POST Rabat, assemble the material (perhaps with some post-meeting consultation via the web) present the material as a set of Bayesian Belief Networks like the one we constructed in Paris in June 2012 (see Figure 1); Simple spatial simulators could also be developed using what-if approaches (see Figure 2) for specific indicators but these are best presented as tools to support applications like '1' in Table 1, rather than use type '3'). <p>This outcome and strategy would seem to fit with the requirements of the Regional Assessment. Thus the outcome of the Nottingham meeting that we should looking for would be to:</p> <ol style="list-style-type: none"> Agree which indicators we want to use to characterise the desirable ICZM future and how their target states could be specified; Agree on briefing materials and data for each indicator – that could help people understand the current state and where the pressure points are; Identify who should attend the Rabat workshop so that an appropriate set of participant' are available for the analysis; and Agree what the final product from the meeting should be and who the audience is. 																										
<p>Suggested Programme for Nottingham Meeting</p>	<hr/> <p>Monday 11th February: travel day – delegates arrive by evening</p> <hr/> <p>Tuesday 12th February, 2013</p> <table border="1"> <tr> <td>09.00</td> <td>Arrive (Room B27c, CEM, School of Geography, University of Nottingham), Coffee provided</td> </tr> <tr> <td>09.15-09.45</td> <td>Review recent developments and agree agenda</td> </tr> <tr> <td>09.45-10.30</td> <td>The role of BBN at, and after, the Rabat workshop</td> </tr> <tr> <td>10.30-12.00</td> <td>Short Introduction on BBN, and how the NETICA software works Agree mapping of PEGASO pre-selected indicators (e.g., urbanization, natural capital maintenance) onto ICZM Principles and target states</td> </tr> <tr> <td>12.00-13.00</td> <td>Review approach to construction of casual chains and simulation modelling using BBNs</td> </tr> <tr> <td>13.00-14.00</td> <td>Lunch</td> </tr> <tr> <td>14.00-17.00</td> <td>Construct draft BBNs for each key indicator</td> </tr> <tr> <td>17.00-17.30</td> <td>Review progress</td> </tr> <tr> <td>19.00</td> <td>Joint dinner</td> </tr> </table> <hr/> <p>Wednesday 13th February, 2013 (room A5)</p> <table border="1"> <tr> <td>09.00-10.00</td> <td>Complete construction of BBNs for indicators</td> </tr> <tr> <td>10.00-11.00</td> <td>Agree programme for Rabat meeting and preparation needed (assign responsibilities)</td> </tr> <tr> <td>11.00-13.00</td> <td>Review proposals for final outputs from scenario task</td> </tr> <tr> <td>13.00</td> <td>Close, lunch and depart</td> </tr> </table>	09.00	Arrive (Room B27c, CEM, School of Geography, University of Nottingham), Coffee provided	09.15-09.45	Review recent developments and agree agenda	09.45-10.30	The role of BBN at, and after, the Rabat workshop	10.30-12.00	Short Introduction on BBN, and how the NETICA software works Agree mapping of PEGASO pre-selected indicators (e.g., urbanization, natural capital maintenance) onto ICZM Principles and target states	12.00-13.00	Review approach to construction of casual chains and simulation modelling using BBNs	13.00-14.00	Lunch	14.00-17.00	Construct draft BBNs for each key indicator	17.00-17.30	Review progress	19.00	Joint dinner	09.00-10.00	Complete construction of BBNs for indicators	10.00-11.00	Agree programme for Rabat meeting and preparation needed (assign responsibilities)	11.00-13.00	Review proposals for final outputs from scenario task	13.00	Close, lunch and depart
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Table A1: Potential Uses of Scenario Tools and their relevance to PEGASO (Modified from McKenzie et al., 2012)

	User Goals	Scenario Storyline	Common Methods Possible	Application in PEGASO Context
1	Identify effective and equitable interventions that meet policy goals	Designs for real policies, plans and projects	<ul style="list-style-type: none"> • Desk study of policy, project and planning documents • Literature review of similar interventions in similar contexts • Workshops and/or interviews with decision makers and stakeholders • Statistical or simulation modelling 	This is where Strategic Environmental Assessment might be used to compare options for a new infrastructure development or environmental mitigation measures – this can be <u>illustrated</u> by working with specific case partners such as Greece (sea level rise) and Egypt (urban development on Nile delta)
2	Test how policies cope with unexpected future circumstances	Possible but unexpected futures	<ul style="list-style-type: none"> • Stakeholder workshops that explore drivers of change and possible surprises • Literature review on drivers of change • Statistical or simulation modelling 	This is essentially where wildcards or shocks are imagined and system responses are traced. It assumed that we have a relatively clear picture of what the future trajectory is and then think through how it might react. In the context of PEGASO we could have a consultation/workshop on possible system shocks and their impacts, but this seems less of a priority than 3.
3	Determine how to reach a desired future and resolve stakeholder conflicts	Stakeholders' concepts of desirable or undesirable futures	<ul style="list-style-type: none"> • Workshops where stakeholders share and/or develop common vision of future • Interactive websites to share ideal or undesirable futures • Interviews or surveys with stakeholders or stakeholder groups • Landscapes or seascapes optimized to meet specific goals 	This could involve testing the robustness of ICZM goals under different plausible futures (this is the desirable future). We have already identified many of the drivers and the Indicator work has defined those variables that we can use to track potential outcomes. Simulation or what-if modelling could be done through NETICA, but is it not clear how comprehensive of general this could be.
4	Compare other scenarios against a standard that represents current policies and identify likely risks or opportunities	Depictions of the expected future (i.e., business as usual) with no new interventions	<ul style="list-style-type: none"> • Predictions or forecasts, based on statistical analysis of historical trends • Stakeholder workshops • Desk study of existing policy or planning documents • Statistical or simulation modelling 	This avenue of work has a strong resonance with what Plan Bleu have done, but the base-line trajectory is not fully updated and we would need to extend it to the BS etc. In the final reporting we could identify this as a key future task for the platform and make recommendations about how it can be achieved.

Source: McKenzie, E., B. Chaplin-Kramer, C. Conner, A. Guerry, T. Ricketts and A. Rosenthal. (2012): *Scenarios for InVEST: A Primer*, www.naturalcapitalproject.org/pubs/ScenariosPrimer.pdf

Figure A1: Illustrative BBN for identifying Casual Chains for two PEGASO ICZM Indicators

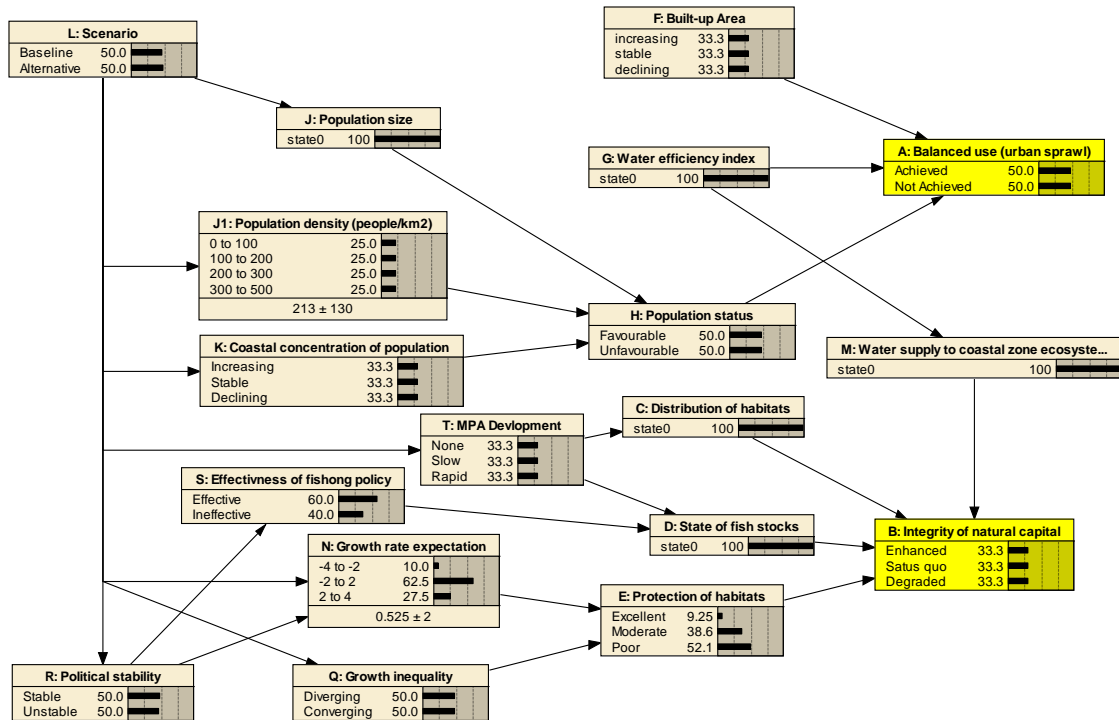


Figure A2: Potential simulation tool that can be used to explore spatial consequences of land cover change (needs to be modified for PEGASO region, since developed only for Europe at this stage)

