

Measuring Sustainability:

Systemic Prospective Sustainability Analysis,
Analyse de Durabilite Systemique et Prospective

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This presentation ...

- The SPSA Approach introduced
- Experience from Coastal Area Management Plans for Malta, Lebanon, Algeria and Slovenia
- Also used in UK and in other parts of the world
- Notes from the field
- Ideas for the future



Blue Plan

- This paper is indicative of collaborative work undertaken with the funding and active support of the Blue Plan Regional Activity Centre
- See: <http://www.planbleu.org>
- Blue Plan has championed systemic and prospective approaches in Coastal Area Management Programmes across the Mediterranean



Sustainability Indicators

- At the National
- International
- Regional
- Local levels

Tend to

- be designed by experts
- for experts
- be ignored
- by most people



SPSA .. ADSP



1. Réfléchir et comprendre

Atelier 1 : comprendre le contexte et les grandes problématiques locales

Atelier 5 : Mettre au point un plan d'action et de communication

4. Suggérer et agir

Atelier 4 : Examiner les mini scénarios avec les acteurs et élaborer un scénario global

2. Relier et étudier

Atelier 2 : Identifier les indicateurs clés, clarifier leur signification et évaluer leur valeur de durabilité

3. Modéliser et explorer

Atelier 3 : représenter graphiquement les indicateurs de durabilité et explorer leurs évolutions futures



Workshop 1. Gathering the team



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Understanding NOW

- Rich Picture

Using
Soft
Systems
Methodology
by Peter Checkland,

CAMP Algeria



CAMP Lebanon

Understand the sustainable need

- Tasks
- Issues

Tasks	Issues
Stake Holders Participation	Conflicting interests between stakeholders
Protection of Environmental Sensitive Areas	Enforcement, Land Fragmentation, Legal Framework
Promotion of open spaces and recreational areas	Pressures from Business/ Developers
Management and Planning System	Lack of Policy integration
Policy Oriented Data Supply	Scientific vs. Policy

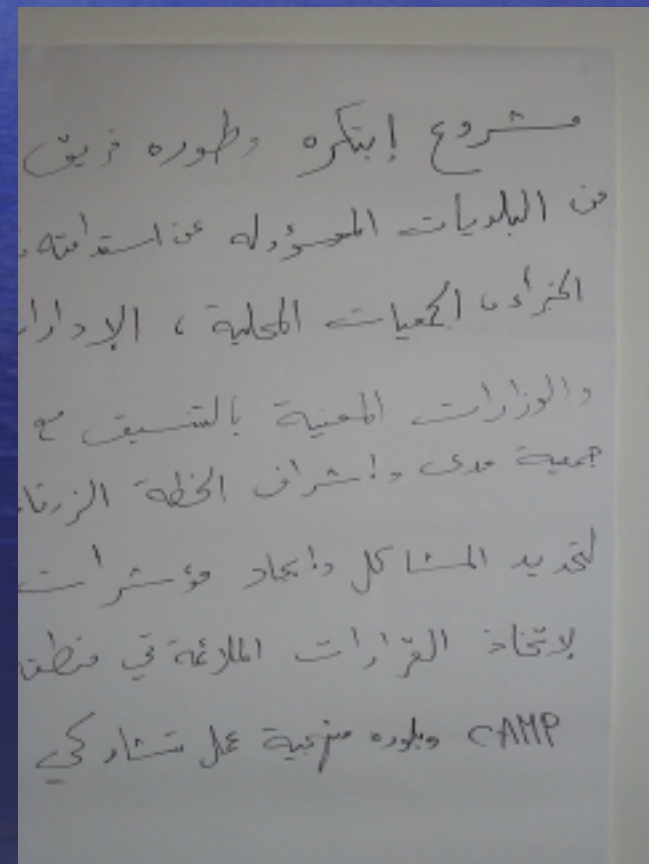
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Visions of ways forward..

- *Development project "Carst & Brkini – from past in future", produced and developed from local communities under cover of region for local population to achieve preservation of natural and cultural heritage within development of suitable development and economic mechanisms to achieve better, quality and enrichment life, taking into account positive and stimulative political will, with responsibility held by legal representatives of local communities, state and creative involvement of local citizens.*

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Involving stakeholders



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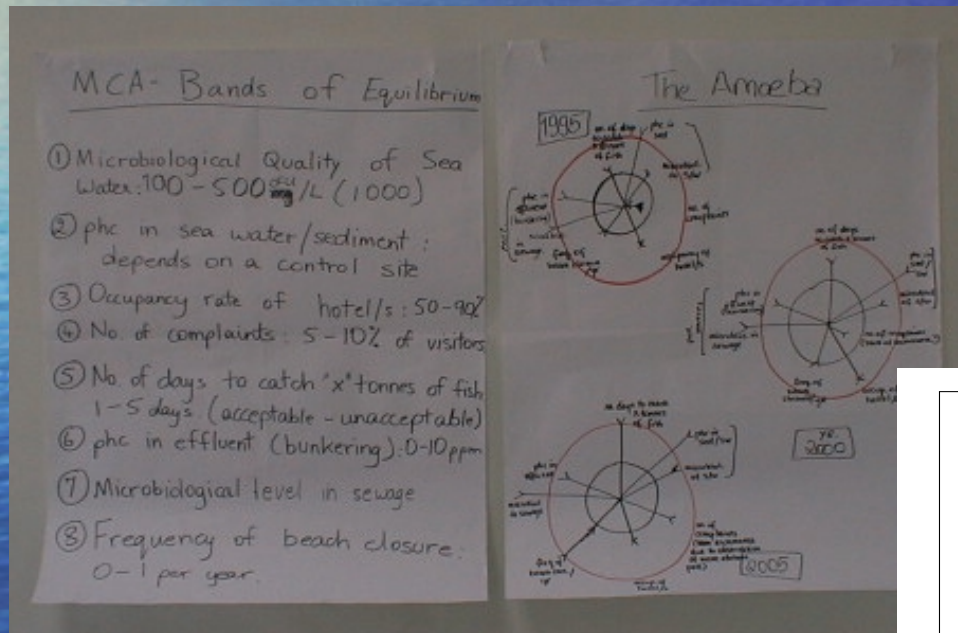
Transferring methods

- Local people work on activity plans
- Getting SIs
- Review findings
- Clarify methods
- Rethink and re-energise

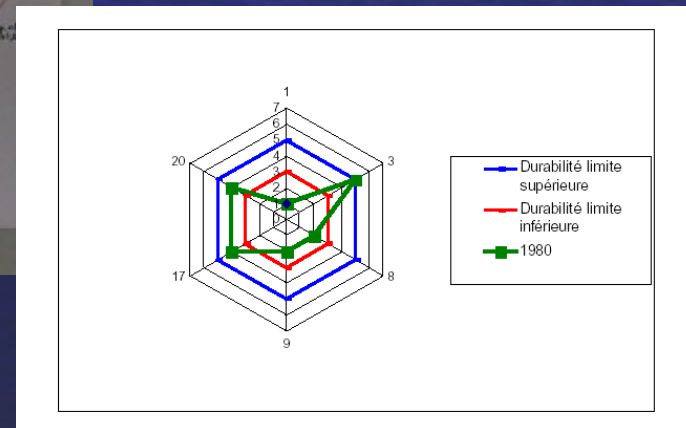


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Workshop 2. Agree SIs, agree band of equilibrium, develop AMOEBA



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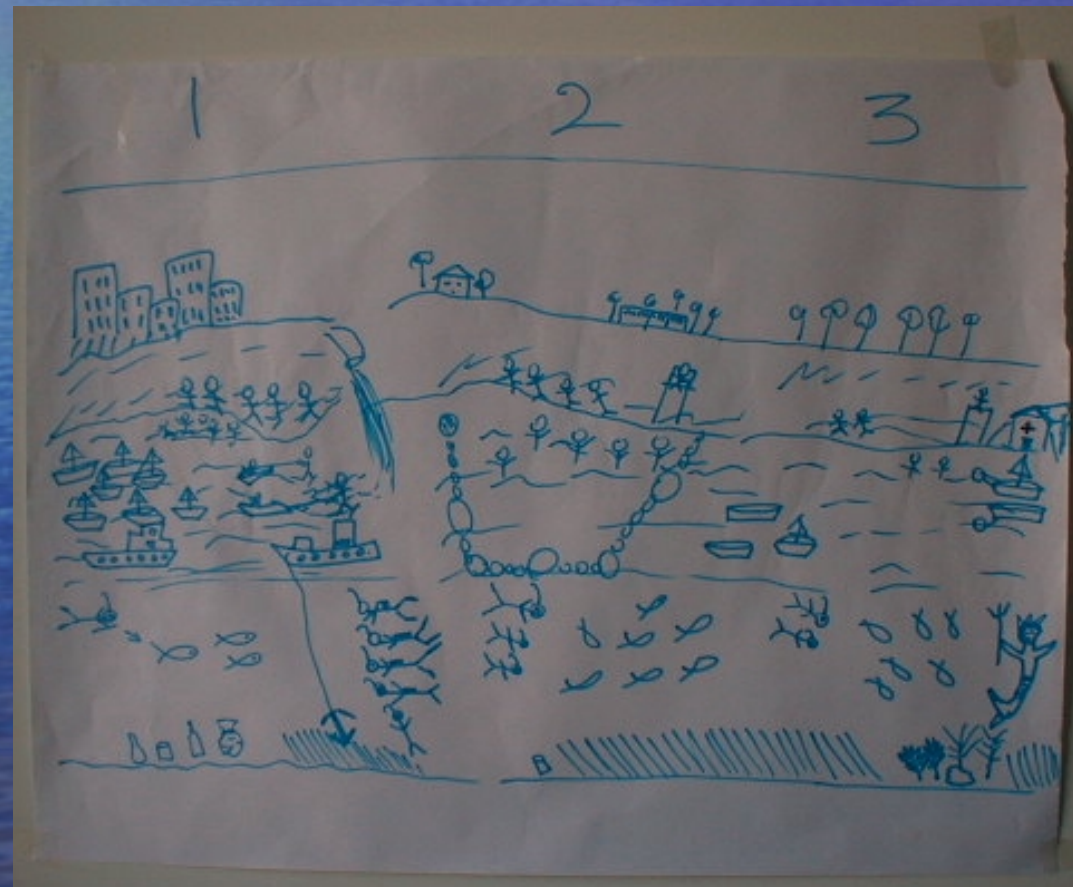


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Indicators, bands and data

Indicateurs – clés de durabilité	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Σ Des relations	
Domaines d'Actions (stratégie)																				
Epuration des eaux usées	1	1		1	1		1					1	1	1		1				9
Recyclage des eaux usées	1	1		1																3
Economie de l'eau (gaspillage)	1	1	1		1		1				1				1					7
Qualité de l'eau	1	1			1	1														4
Lutte contre l'habitat précaire				1	1	1		1			1				1			1		7
Moyens financiers locaux				1	1	1		1	1		1	1	1					1		9
Etudes d'impacts (ZET)								1	1	1		1		1		1		1		7
Textes d'application 'loi littoral'								1	1	1		1	1	1		1		1		8
Déf.et protec. Littoral sableux					1		1	1	1			1		1		1				7
Adaptation instrum. urbanisme								1	1	1	1	1		1	1	1		1		9
Polit. Aménagt. Du Territoire	1			1	1		1		1	1		1		1	1			1		9
Organisat. associatives (ONG)					1		1	1	1	1	1	1	1	1		1	1	1		12
Protection sites nat. sensibles					1			1	1			1		1		1		1		7
Gestion des données environnt.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18
Taxes et redevances environnt.	1	1		1	1													1		5
Fonds pour l'environnement	1				1	1		1			1	1		1		1	1	1		10
Gestion intégrée déchets solid.	1						1											1		3
Suivi et Surveil. environnement	1				1	1		1	1	1			1	1		1	1	1		11
Créations PME (jeunesse)				1	1	1		1			1	1	1	1	1			1	1	11
Programme de reboisement							1	1			1			1					1	5
Σ Des relations	9	6	6	8	13	4	11	11	9	8	8	12	7	13	6	10	9	11		

Workshop 3. Scenario planning - Futurology



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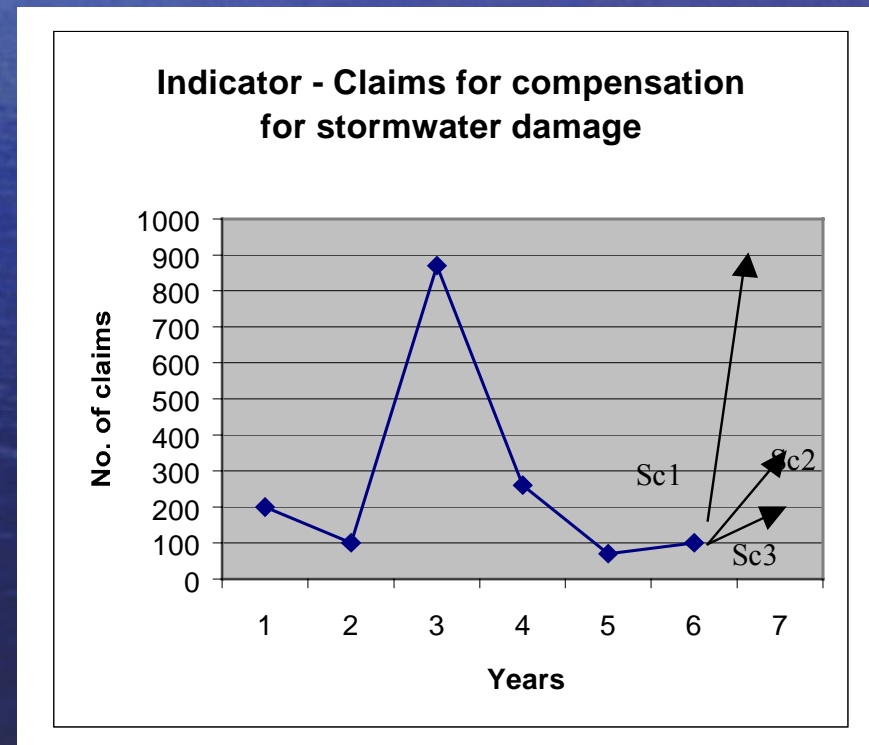
Scenario making

Indicator – Claims for compensation for storm water damage

Scenario 1 – Climate change fluctuations occur without mitigation. Business as usual for all other factors

Scenario 2 – Some mitigation for climate change and partial maintenance and repair of rubble walls

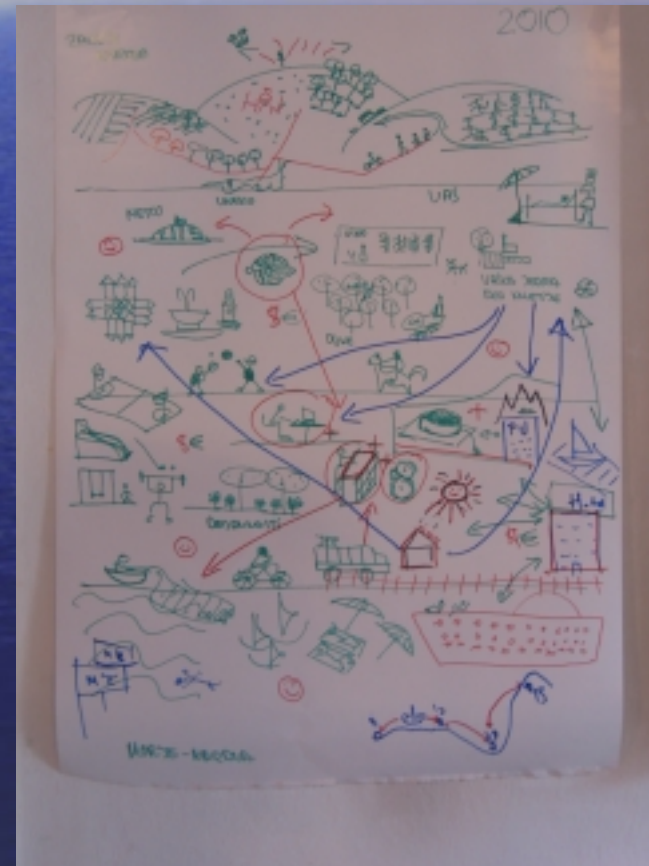
Scenario 3 – Full mitigation for climate change and full implementation of repair and maintenance of rubble walls. With more owners farming their own land more irrigated farmland will ensue and more capital investment to prevent erosion.



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Workshop 4. Policy formulation

- Look at all Scenarios
- Make macro Scenarios
- Build up alternative Macro Scenarios
- Market the SIs and Scenarios
- Publicise and open to public debate
- What does the public want?



CAMP Slovenia

Workshop 5. Change the SI Mix?

- Reconsider what you have
- Do the SIs work?
- Change some
- Develop new
- Go into more contentious areas?
- Re-engage in the process..
- *Sustainable Sustainability Indicators*

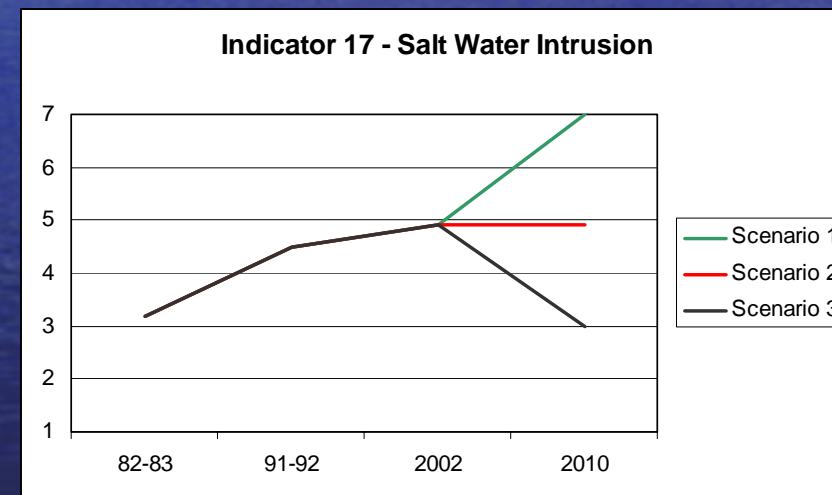
Outcomes..

- Sustainability Indicators across a rang of sectors in Malta..

	1	2	3	4	5	6	7	8	9	10	11	12	13
SUSTAINABLE COASTAL MANAGEMENT													
1 Scheduled/protected areas in NW	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
2 Applications granted - agriculture	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
3 Abandoned agricultural land	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
4 Fish farms in the NW	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
5 Bunkering operations in NW	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
6 Hardstone quarries	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
7 Cars travelling through the NW	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
8 Marine vessels in the NW	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
9 Full time farmers	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
10 Fish catch	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
11 Tourist accommodation occupancy - winter	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
12 Employment in tourism	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
13 Population growth in the NW	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
14 population density in NW	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
15 Full time fishermen	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
16 Beach closure	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
17 Tourist resident ratio -summer	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
18 Marine conservation/protected areas	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
19 Diving in the NW	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
TOURISM AND HEALTH													
20 Gastroenteritis cases	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
22 Pest control	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
23 Sea water quality	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
SOIL EROSION & DESERTIFICATION													
24 Rills and gullies	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
25 Monetary compensation for storm damage	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
26 Breaches in rubble walls	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
27 Hunting and trapping sites per catchment area	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
INTEGRATED WATER RESOURCES MANG.													
28 Quality of drinking water	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
29 Use index	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
30 Water consumption	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
31 Pollution in groundwater	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
MARINE CONSERVATION AREAS													
32 phc in effluent (bunkering)	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
33 Marine vessels in MCA	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
34 Complaints by visitors	Black	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

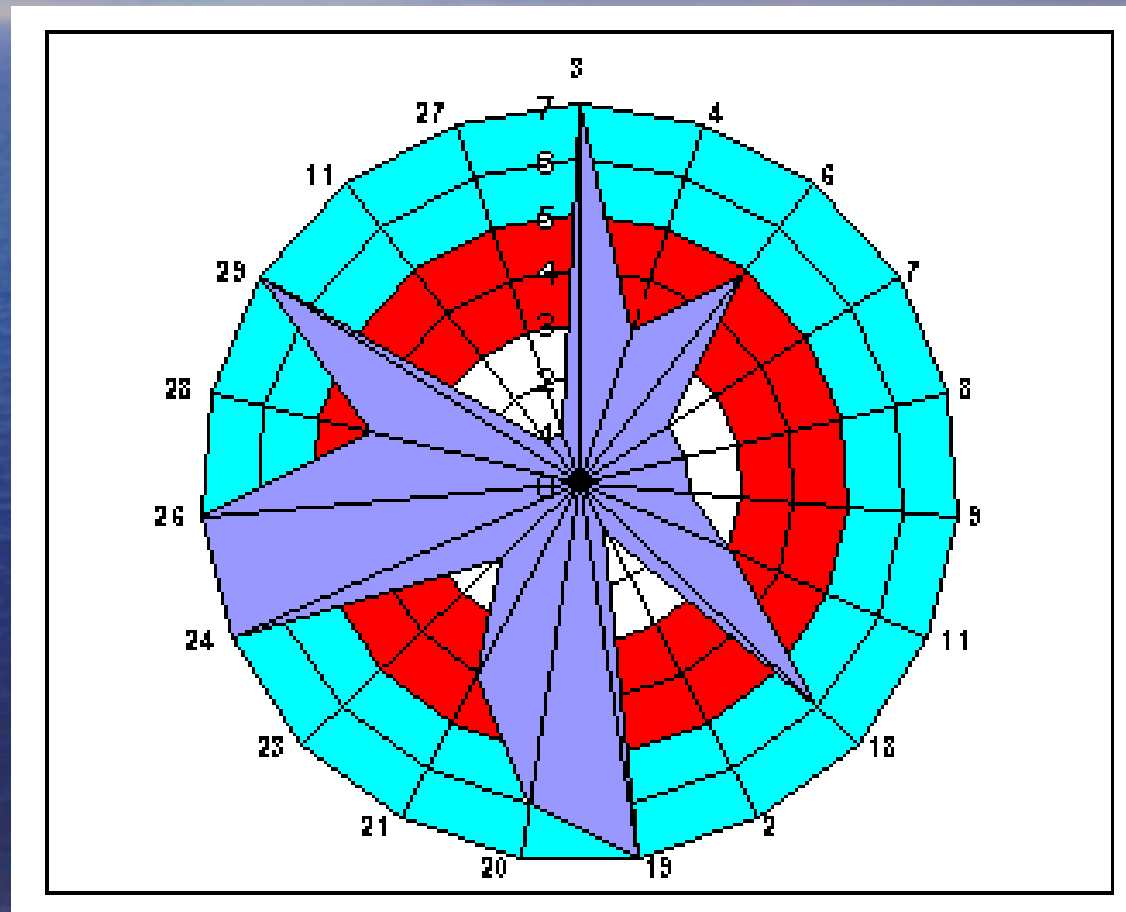
Outcomes ...

- Salt water intrusion scenarios in Lebanon



Outcomes ...

- AMOEBA of sustainable development in Algeria ...



Outcomes

- *National and regional news*
- *Increased local awareness of sustainability issues*
- *Discussion and debate*
- *Prompts to policy makers*
- *Incentives for more work in the future*



Longer term development

- *SPSA feeds into local plans for sustainable development .. Such as the formation and role of National Commissions for Sustainable development*

But..

- *SPSA is only just emerging as a means to surface local concern and interest in Sustainable Development*
- *Needs more profile in CAMP projects*
- *Can add a great deal to projects .. If it is the basis for project activity*



Mirror view – sustainability therapy

- Reflecting
- Respecting
- Asking
- Doing

Key idea

If SIs are to mean
anything
They must mean something
to stakeholders