



PANACHE

Protected Area Network Across
the Channel Ecosystem

LA MANCHE

un
écosystème

deux
projets

CONFERENCE FINALE -17-18 MARS 2015 - TORQUAY



PANACHE

Protected Area Network Across
the Channel Ecosystem

THE ENGLISH CHANNEL
one
ecosystem two
projects

FINAL CONFERENCE - MARCH 17th-18th 2015 - TORQUAY

Will Ecosystem Services Assessment work for me? Using the VALMER triage to define the scope of an assessment



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Review of existing approaches

One worry and a few questions when the project started :

ES assessments can require significant time, effort, expertise...

Is ESA a never-ending process ?
Is everything valuable ?
Should everything be valued ?

Are ES assessments effectively used in decision-making processes ?

Une inquiétude et quelques questions au démarrage du projet :

Les évaluations de SE demandent du temps, des efforts, de l'expertise...

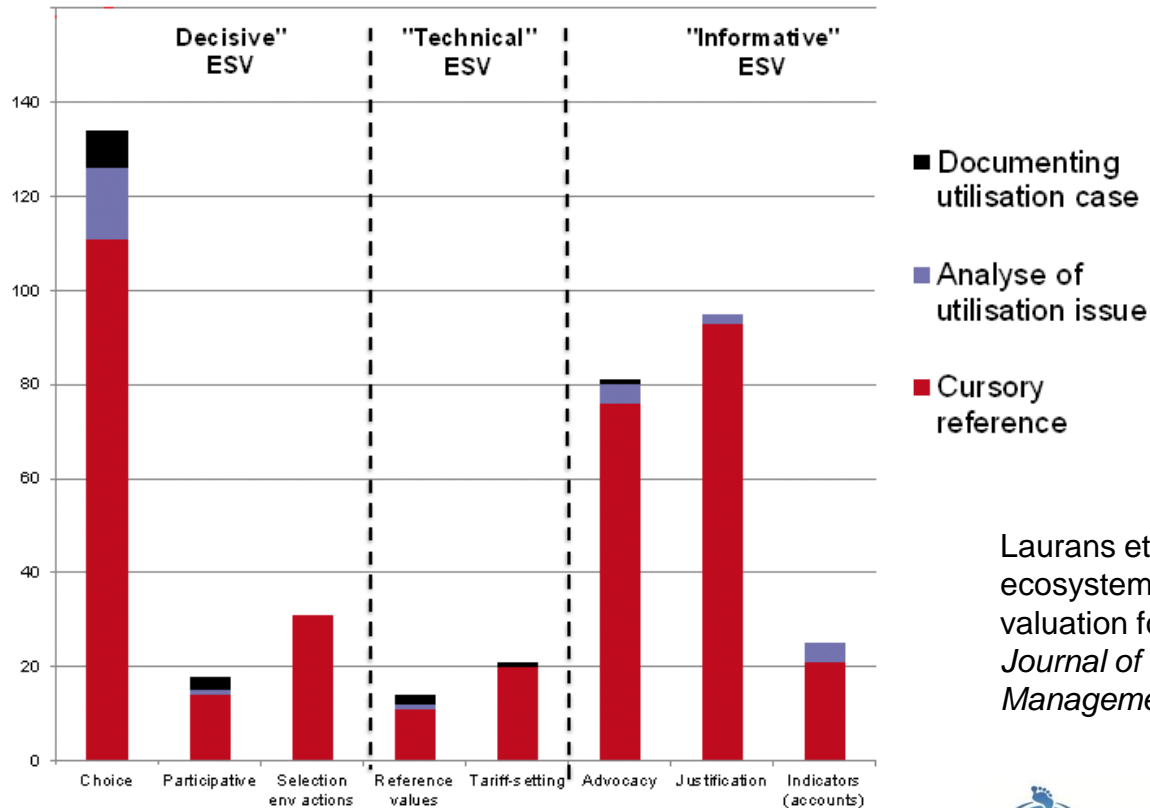
L'ESE est-elle un processus sans fin ?
Tout peut-il être évalué ?
Tout doit-il être évalué ?

Les évaluations de SE sont-elles utilisées dans la prise de décision ?

Review of existing approaches

Valuation without action?
When assessments are carried out regardless of decision context...

Évaluation sans action?
Lorsque les évaluations sont réalisées hors de tout contexte décisionnel...



Laurans et al., 2013. Use of ecosystem services economic valuation for decision making. *Journal of Environmental Management*, 119:208-219.

Review of existing approaches

An international workshop
on ES operational assessments
was organised in Brest,
on 6-8 November 2012

Un atelier international sur les
évaluations opérationnelles des
SE a été organisé à Brest,
du 6 au 8 novembre 2012



http://www.umr-amure.fr/valmer_workshop/index-valmer-wwp1.htm

Expert workshop recommendations

Process....



*Work in partnership
with stakeholders*

*Be aware of context
dependency*

*Tailor valuation outputs
to the audience*

Communicate results

Content...



*Decide upon the management
issue to be addressed*

*Define the scope
of ES valuation*

*Develop realistic and coherent
scenarios of ES change*

*Explore and quantify ES
metrics that are meaningful*

Science needs...



*Address natural
science issues*

*Consider
different scales*

*Avoid unnecessary
complexity*

Triage approach

Pendleton L., Mongrue R., Beaumont N., Hooper T. and Charles M., "A Triage Approach to Improve the Relevance of Marine Ecosystem Services Assessments", in press, *Marine Ecology Progress Series*.

The triage approach

The triage approach is a strategic decision making (SDM) approach, which provides a transparent procedure for delimiting with end-users the aim, the scope and the methods of a potential marine ES assessment (MESA) :

considering the issues at stake and the objectives of the stakeholders, which MES are really of interest, and how to evaluate them ?

NB: in this SDM approach the decision is about what to assess

Le triage est une approche stratégique d'aide à la décision (SAD), fondée sur une procédure transparente visant à définir, avec les utilisateurs finaux, l'objectif, le périmètre et les méthodes d'évaluation des SE marins (ESEM) :

étant donnés les enjeux à considérer et les objectifs des parties prenantes, quels SEM sont réellement pertinents et comment les évaluer ?

NB: dans cette SAD, la décision porte sur ce qu'il faut évaluer

Sequences of the triage

Sequence 1. Preliminary delimitation of the **scope** of the ES assessment in relation to its general **aims**



Sequence 2. Refinement of scope of the ESA through **ES selection**, to prepare **scenarios and policy design**



Sequence 3. Choice of **methods, tools** and **means** for ES assessment in response to management needs

Séquence 1. Délimitation préliminaire du **périmètre** de l'ESE en lien avec son **objectif** général



Séquence 2. Précision du périmètre de l'ESE par la **sélection de SE** clés, pour préparer les **scénarios** à tester



Séquence 3. Choix des **méthodes**, des **outils** et des **moyens** pour l'ESE en réponse aux besoins de gestion

Sequences of the triage: 1/3

Sequence 1. Preliminary delimitation of the **scope** of the ES assessment in relation to its general **aims**

1. For which purposes is a valuation of marine ES needed in the area?
2. What are the most important policy issues in relation to marine ES in the area?
3. What parts of the marine social-ecological system are concerned by these policy issues?

Sequence 2. Refinement of scope of the ESA through **ES selection**, to prepare **scenarios and policy design**

Sequence 3. Choice of **methods, tools** and **means** for ES assessment in response to management needs

Results of Sequence 1 on French case study sites

Purposes of Marine ES Assessment	GNB	PNMI	GM
Improve knowledge		2	2
Integrate knowledge	2		2
Initial diagnosis	1		
Raising awareness	2		1
Anticipating future changes	1		
Facilitate trade-offs	2	3	3
Designing management options	2		3
Compare management options		1	
Increasing well-being			

1 = main purpose ; 2 = secondary purpose ; 3 = complementary purpose

Sequences of the triage: 2/3

Sequence 1. Preliminary delimitation of the **scope** of the ES assessment in relation to its general **aims**



Sequence 2. Refinement of scope of the ESA through **ES selection**, to prepare **scenarios and policy design**

- 4. *What is the potential for the status or value of the ecological functions and services to change?*
- 5. *How does the envisaged management intervention influence these changes?*
- 6. *Which other factors do affect the status or value of the considered functions and services?*



Sequence 3. Choice of **methods, tools** and **means** for ES assessment in response to management needs

Sequence 2: selecting ES to be assessed through a semi-quantitative process (scoring)

Criteria for scoring each question of the Sequence 2 in the triage process

	Potential for the Ecosystem Service value to change	Influence of management on Ecosystem Service change	Other factors affecting the Ecosystem Service
High	Service is sensitive to impacts and value change will be large	Management will have a large influence on value, a strong probability of coming into effect and is locally driven	Local environmental factors have the strongest influence on value
Moderate	Service is sensitive to impacts and value change will be small <i>OR</i> Service is robust and value change will be large	Management will have a large influence on value and at least a reasonable probability of coming into effect, but is not locally driven <i>OR</i> Management will have a moderate influence on value, at least a reasonable probability of coming into effect and is locally driven	Other factors (social, economic, political, global environmental change) have a similar influence on value to that of local environmental factors
Low	Service is robust and value change will be small	Management will have a small influence on value and/or a low probability of coming into effect	Other factors have the strongest influence on value

Results of Sequence 2 on one UK case study site?



Sequences of the triage: 3/3

Sequence 1. Preliminary delimitation of the **scope** of the ES assessment in relation to its general **aims**



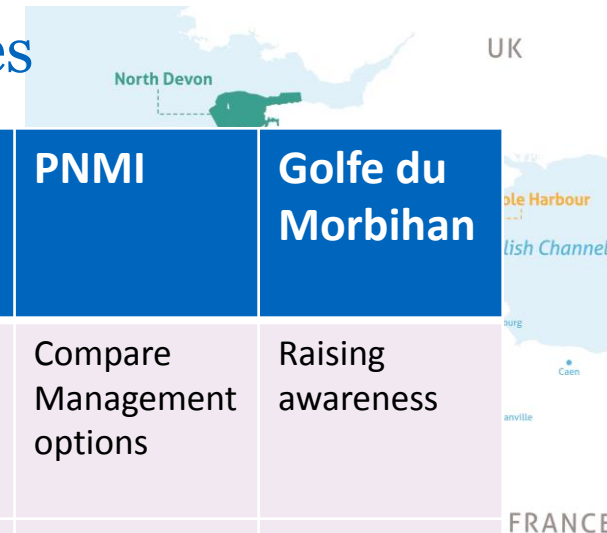
Sequence 2. Refinement of scope of the ESA through **ES selection**, to prepare **scenarios and policy design**



Sequence 3. Choice of **methods, tools** and **means** for ES assessment in response to management needs

- 7. *Which metrics would be meaningful as regards the factors of change to be considered?*
- 8. *Which methods and tools could be used to obtain such metrics?*
- 9. *Is the envisaged valuation method feasible?*

Application of the approach in the 6 study sites



	NDBR	Poole Harbour	Sound - Fowey	Golfe Normand-Breton	PNMI	Golfe du Morbihan
Aim	Design management options	Improve knowledge	Initial diagnosis	Initial diagnosis; Exploratory scenarios	Compare Management options	Raising awareness
Issue	Impact on benthic habitats	Recreational Use	Mixed	Increasing demand of all uses	Increasing demand for kelps	Improve seagrass preservation
Habitat	Benthic offshore	Mixed (Harbour)	Mixed (coastal and offshore)	Intertidal zone; fish habitats	Kelp forests	Seagrass beds
Services	Fisheries, nutrient cycling, carbon cycling	Recreation	Varied	All, mainly Recreative services, Provisioning services	Food, remarkable species, ecotourism	Maintenance and regulation services
Methods	Bayesian Belief Networks	TCM, survey	Varied	INVEST Ecosystem accounting	Indicators Dynamic modelling	Choice experiment

Key outcomes from the triage

1. Study site teams were convinced of the interest of this SDM approach
2. They used it in an iterative and also flexible way; for instance it is possible to reach a final agreement on the metrics and method (Step 3) before a final agreement on the ES to be assessed (Step 2)
3. Step 1 (issue, aim and scope) was easy to implement, and stable results were quickly obtained
4. Step 2 is also useful, but it may turn out to be complicated when too much habitats, issues or ES are still considered after the step 1, or when the lack of knowledge prevent to anticipate ES evolution

1. Les sites d'étude ont apprécié l'intérêt de cette approche SAD
2. Ils l'ont utilisée de façon flexible et itérative ; par exemple il est possible de s'accorder sur les métriques et les méthodes (Séq. 3) avant même de fixer la sélection finale des SE à évaluer (Séq. 2)
3. La séquence 1 était facile à appliquer et des résultats stables ont été obtenus rapidement
4. La séquence 2 est aussi utile mais peut s'avérer compliquée quand trop d'habitats, d'enjeux ou de SE sont conservées en fin de séq. 1, ou lorsque l'évolution des SE est impossible à anticiper

Key outcomes from the triage

5. Step 3 is very dependent on the available means (data which are ready to use, skills of the study site team), as experts are more used to think in terms of data and methods rather than in terms of “meaningful indicators” for stakeholders; this would also necessitate more work on visualisation or communication
6. **GOOD NEWS:** the proper and rationale use of (economic) assessment methods requires to make explicit the rationale of the user of the ESA (otherwise: high risk of misuse, cf CBA), this seems possible at local level for local ES management.
5. La séquence 3 dépend beaucoup des moyens disponibles (données accessibles, compétences des équipes), car les experts raisonnent en termes de données et de méthodes plutôt que de “métriques parlantes” pour les acteurs ; cela indique aussi le besoin de travaux sur la visualisation et la communication des résultats
6. **BON POINT :** l’utilisation pertinente des méthodes d’évaluation (économiques) suppose d’expliciter la logique de l’utilisateur de l’ESE (sinon mésusage, cf ACB), ce qui semble possible à l’échelon local pour la gestion des SE locaux.

Conclusions

The Triage is very useful to select the key ES to be assessed for dealing with real-life ecosystem management issues

In addition, its implementation allows the end-users to open the black boxes of knowledge gaps, assessment method limitations, rough assumptions...

It is very helpful as a social process, in which science goes back to its maieutics: questioning ourselves together to find out what is the issue at stake in a context of uncertainties and conflicting representations.

Le triage est très utile pour sélectionner les SE clés à évaluer aux fins de traiter les questions de gestion du monde réel

De plus, sa mise en oeuvre permet aux utilisateurs d'ouvrir les "boîtes noires" : manques de connaissances, limites de l'évaluation, hypothèses fortes...

Le triage est un processus social dans lequel les sciences contribuent à une maïeutique : s'interroger ensemble pour cerner les enjeux dans un contexte d'incertitudes et de visions du monde contradictoires



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