Backcasting Tool Review

Futures Tools

TABLES Project 2012: Mini reviews		
Guidance	*Using your experience and expertise, consider the following tasks in relation to the tool. It may not be possible to complete all tasks for each tool due to a lack of available information, the task not applying to the tool, etc.* ***Please note where this is the case by writing in the reason in the space provided****. Please use a maximum of 6 pages of A4 (excluding diagrams and appendices).* ***Your responses are required in the white spaces****.*	
Task 1: Basic information		
Name of the tool	Backcasting	
Type of tool (list all that apply)		Economic: creating markets linking 'suppliers' of ecosystem services with their 'consumers'; also Participatory; Decision support; Futures; Ecosystem Services
Group members	1. Mark Everard	
	2. Gary Kass	
	3.	
	4.	
	5.	

Please provide a brief synopsis of the tool	Backcasting is a valuable tool for strategic planning. It differs from the more widespread application of forecasting techniques which largely extrapolate current trends out into the future, often as a set of scenarios identifying potential future outcomes. Instead, backcasting works 'backwards' from a preferred future state, allowing exploration of strategic steps forward to meet it from the current situation. In a sustainable development context, this preferred future state can be built, generally by consensus, as a vision of being fully sustainable. This then supports strategic planning towards that preferred future in ways that help identify 'breakthough' leaps rather than being tied to incremental improvement from the current situation. For example, forecasting may lead an enterprise to identify investment in energy efficiency as a priority, whereas a backcasting approach that recognises that the energy-consuming process (say a metal plating plant) may have no long-term place in a sustainable business will encourage managers to look to alternative solutions, identifying novel products and processes rather than tying investment into non-strategic goals. Backcasting can be applied in a range of circumstances, from business to government activities including policy and regulation and even addressing organisational change. Backcasting has been linked with a suite of related tools to progress sustainable development in The Natural Step (TNS) Framework (see e.g. Robèrt K-H, 2008 and also Everard, M., 2008). The frame of reference for strategic planning in the TNS Framework is the TNS Sustainability Principles. The ecosystem services framework could equally be used as the frame of reference for sustainability visioning, enabling consensus-building (by Executive Board members, local community, product development team or other group) about a desired sustainable outcome or preferred balance of services. In summary, backcasting is a tool that may be usefully applied in strategic planning, including in an ecosystem service context, though it has not been done so explicitly to date beyond inclusion in the Integrated Catchment Value Systems model (Everard *et al.*, 2009).

Task 2: Use of the tool

Position / Use

Stage	Currently used	Could be used
Ideas	N Not currently applied in practice	Y High: Suitable to collect and work with ideas
Survey	N Not currently applied in practice	Y Marginal: Could stimulate / identify needs rather than help with actual surveys
Assess	N Not currently applied in practice	Y Marginal: Could help stimulate thinking about potential development paths and assessment gaps
Policy / decision	N Not currently applied in practice	Y High: Appears well suited for this - use to inform policy and decision making
Implement	N Not currently applied in practice	Y Marginal: Could be used to sketch out implementation stages
Evaluate	Y The Integrated Catchment Value Systems model was used to evaluate a PES market developed in the Himalayas (by Everard and Kataria, 2012)	Y High: Evaluate actual against goal and identified milestones.

Task 3: Existing literature about the tool

Are you aware of any KEY policy and / or academic literature evaluating your tool?

Please add any further comments here:

There is little evaluation of the tool; key literature is included earlier in this review.

	Author & Date	Title Vol pages	Web link (if available)
	Robèrt K.-H. (2008)	'The Natural Step Story: Seeding a Quiet Revolution'	
	Everard, M. (2008)	'PVC: Reaching for Sustainability'	
	M. EVERARD, J. COLVIN, M. MANDER, C. DICKENS and S. CHIMBUYA (2009)	'Integrated Catchment Value Systems', *Journal of Water Resource and Protection*, 1(3): 174-187.	doi: 10.4236/jwarp.2009.13022

Task 4: Your experience of working on the tool	
Have you done any research/consultancy work on this tool in terms of its development, testing and/or evaluation? *If so, please provide an outline.*	I have worked extensively with backcasting as a tool and found it effective with businesses, in research and with municipalities. However, other than in the Integrated Catchment Value Systems model, I have not applied it in practice.
Guidance	For Tasks 5-7, please also try to consider the **future** development and application of this tool in the TABLES project in your answers.
Task 5: Incorporating the ecosystem approach (EA) and ecosystem services (ES)	
Using examples (from practice, research or consultancy), explain how EA and/or ES are currently incorporated in/by the tool	As indicated in the preamble, this is more about potential than current practice.

How <u>could</u> the ecosystem approach and/or ecosystem services be (further) incorporated within the existing tool?	In theory, the ecosystem services framework could form the basis for backcasting in a range of settings.

Task 6: Situating the tool within priority questions/criteria arising from the scoping interviews

Explain how the tool can be situated within the priority questions/criteria that arose in the scoping interviews

Priority question/criteria	**Does your tool address/implement this question/criteria? Or does it have the potential if it was better integrated with an EA/ES approach?**
Language and communication	
1. Contribution to aiding the development of shared vocabulary within which principles of EA and ES can be shared with multiple stakeholders across built and/or natural environment	High: Getting people together to vision around a preferred balance of ecosystem services would have strong pedagogic value.
2. Capacity of the tool to develop shared understandings of the many identities and values of places from the perspectives of multiple visitors, residents and businesses	Varied: Getting people together to vision around a preferred balance of ecosystem services would have strong pedagogic value, linking up societal sectors.
3. Capacity of the tool to improve or enable engagement across different publics so avoiding the usual suspect problem	Varied: Getting people together to vision around a preferred balance of ecosystem services would have strong pedagogic value, linking up different constituencies of people.
Learning from experience/pedagogy	
4. Capacity of the tool to help reveal and value 'hidden' assets that are not recognised by communities or publics that use them	Varied: Getting people together to vision around a preferred balance of ecosystem services would help reveal overlooked values and the often overlooked value systems of different people. Unsure how common already but high potential.

5. Extent to which tool is building on other tools or EA/ES progress	Varied: As noted above, this is an established tool into which the ecosystem approach could be integrated.
6. Extent to which tool is locally derived or grounded or can be adjusted to closely reflect 'local' context. Is the tool suitable for an open source approach?	Varied: As noted above, this is an established tool into which the ecosystem approach could be integrated. Works well at range of scales.
7. Extent to which the tool is open to interpretation and application in a variety of forms (that reflect 'cultural' differences)	High: This tool can be developed on a context/product-specific basis.
Developing and selecting tools	
8. Is the tool dependent on a specific funding source? How onerous is the application procedure? What are the chances of success?	N/A. Backcasting processes benefit from facilitation, but there is bespoke budget for this. However, it could usefully be built into existing visioning and strategic planning processes.
9. Does skills development (essential or optional?) and support exist for the tool or is there a body to ensure the optimal and correct use of it?	Varied: Learning is available from both existing successful use of backcasting and other ecosystem services-based tools, though there is no bespoke skills development resource for this combination.
10. Extent to which current statutory hooks can be exploited by the tool or will benefit the quality or application of the tool (e.g. NPPF's duty to cooperate, SUDS, ecol. networks)	High: Sustainable development is inherently about heading towards a preferred (sustainable) future rather than leaving the future to happen by chance, so backcasting is implicit in any policy driver requiring sustainable outcomes.
Informing resultant policies effectively	
11. Extent to which the tool informs or improves policies/decisions. What does the tool cover? (full range of positive and negative economic, social and environment impacts / tradeoffs?)	Varied: Backcasting can help tune to targeting of policies and decisions.
12. How does the tool link into the planning system (applications and processes). At what cost / extra burden?	Varied / Not necessarily explicit: Could do so in many circumstances.

Delivering management objectives	
13. Suitability or capacity of the tool to assist with managing visitor needs and pressures within protected areas / the considered area? How?	Could be adapted for this purpose if so designed.
Local ownership/new governance	
14. To what extent can the tool assist in developing statutory plans (local and management plans) and improve ownership and use by publics?	Partly: Can promote public engagement in visioning desired futures.
15. To what extent does/could the tool contribute to a new form of community governance in management of the environment?	Partly: Can promote public engagement in visioning desired futures.
Improved tools: understanding flows, interconnections and spatial issues	
16. Capacity to improve spatial understandings of the flows and interactions of various ecosystem services between sectors and at different scales	Varied: Can promote public engagement in visioning desired futures, including links between 'producers' and 'consumers'.
17. Capacity of the tool to reconcile assessments of options and benefits across different scales (and sectors)	High: As a visioning tool, backcasting can help form preferred outcomes that are not only more sustainable but also where conflicts have been overcome.
18. Extent to which the tools is capable or can be manipulated to work across sectoral and administrative boundaries	High: Can promote wide sectoral engagement in visioning desired futures.
19. Extent to which the tool can handle data shortages and gaps (or is effectiveness considerably compromised?)	Varied: As a visioning tool, backcasting is not automatically data-driven, though clearly when it comes to planning future strategy to achieve that vision data will be required.
20. To what extent has/could the tool put landscape/nature conservation and designated species/sites on the radar (positively or resulting in resentment?)	Not yet explored, but the wider focus on services should facilitate this if desired.

Please add any further comments here:

Task 7: A SWOT analysis of the tool

Referring back to the relevant policy and academic literature (listed in Task 3), plus your own expertise (listed in Task 4) and the way in which the tool is situated within the priority questions/criteria (listed in Task 6), please complete a summary SWOT analysis ensuring that each point is well justified

Strengths *(of the tool in delivering intended outcomes)*

- An established tool in sustainable development
- Promotes consensual visioning
- Helps overcome incrementalism
- Helps identify 'breakthrough' opportunities

Weaknesses *(factors that detract from the tool's ability to deliver intended outcomes)*

- Does not automatically address all services
- Benefits from investment in facilitation

Opportunities *(consider opportunities for application of the ecosystem approach and services)*

- Can be easily linked with the ecosystem services framework

Threats *(factors which negatively affect the tool and its outcomes)*

Threat	**Seriousness (high, medium, low)**	**Probability of occurrence (high, medium, low)**
Risks capture by those with narrow service interests	High	Medium

Please add further comments here:

Guidance	*Please now use the remainder of the document (box below) to make any general comments, observations or analyses of the tool*
Further comments	