

# Games Tool Review

## Public Engagement Tools

TABLES Project 2012: Mini reviews	
<b>Guidance</b>	<i>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. <b>Please note where this is the case by writing in the reason in the space provided.</b> Please use a maximum of 6 pages of A4 (excluding diagrams and appendices). <b>Your responses are required in the white spaces.</b></i>
<b>Task 1: Basic information</b>	
<b>Name of the tool</b>	Games (Rufopoly)
<b>Type of tool (list all that apply)</b> <i>Learning and skills (pedagogic); participatory; regulatory; collaborative; mapping; valuation; modelling; decision; futures; financial; ecosystem services</i>	Learning and skills (pedagogic); participatory; collaborative; decision; ecosystem services
<b>Group members</b> <i>(minimum size 3 members, must include a BCU rep)</i>	<ol style="list-style-type: none"> <li>1. Claudia Carter</li> <li>2. Alister Scott</li> <li>3. Rachel Curzon</li> <li>4.</li> <li>5.</li> </ol>
<b>Please provide a brief synopsis of the tool</b>  <i>This may include: background context, development (and ownership if appropriate), current use and applications etc.</i>  <i>Please also note any desired outcomes of the tool so that you can make reference back to these in Task 7: SWOT analysis</i>	<p><b>Background context</b></p> <p>This review is based on direct experience of developing a game tool (RUFopoly), games as outputs from EC research projects (largely within the science in society and the human-environment interaction themes) and academic literature (specifically Devisch, O. 2008. 'Should Planners Start Playing Computer Games? Arguments from SimCity and Second Life', <i>Planning Theory &amp; Practice</i> 9(2): 209-226). The main focus is on RUFopoly simply because the authors of this review have the most experience and information on the design, role and scope of the game, not because it is necessarily the most suitable tool.</p> <p>RUFopoly was developed to help communicate in an accessible and way the complex concepts and relevance of 'spatial planning' and 'ecosystem approach' in relation to dealing with rapid environmental change and development challenges in the rural-urban fringe (RUF). The content of the game used research findings and experience of an interdisciplinary research team including academics, policy-informers and practitioners. As with games generally, the rationale is to be enjoyable and engaging, and with being a board game that can be played as a group, to facilitate some interaction with other players.</p> <p>RUFopoly can be played in different ways but was designed as an interactive game that stimulates reflection. The players choose a counter and use a dice to journey through the fictitious county of RUFshire, which is facing pressures and opportunities for development generated by the region's growing population and range of environmental goods and services (including designated conservation areas and greenbelt). The game has 28 fields</p>

the player can land on structured around three themes identified by the research team as core to an ecosystem approach and spatial planning (Values, Connections/Connectivity, and Long-termism). Players are usually supported by a facilitator who notes down answers and supporting justification given in discussions. This audit trail of decisions is then used to allow each player to devise their own vision set within improved understanding of the impact of their previous decisions. The gist of the game is hence not about winning but about considering the basis, context and impacts of one's own decisions (if played alone) and/or to discuss and negotiate solutions with other players, considering different priorities and perspectives (if played as a group) in the final decision/answer to the questions/challenges posed in the game.

The game's first appearance was at the RELU conference 'Who Should Run the Countryside' in November 2011 as an outcome of the RELU-funded project: 'Managing Environmental Change at the Fringe: Reconnecting Science and Policy with the Rural-Urban Fringe'. It caught the attention of the national press and has been played by a wide range of endusers, including professional bodies, national government officials, local authorities, and community groups.

There is a copyright issue associated with the base map of the game. At present, the game cannot be sold as a commercial product – it is restricted to being used for educational purposes only.

## Task 2: Use of the tool

Position / Use <i>If you can, please indicate which stage(s) of the decision / policy making process your tool is / could be used in (these stages were identified in the specification document)</i>	Stage	Currently used	Could be used
	Ideas	Yes	
	Survey		
	Assess		
	Policy / decision		Yes
	Implement		Yes
	Evaluate		Yes

Please add any further comments here:

## Task 3: Existing literature about the tool

Are you aware of any KEY policy and / or academic literature evaluating your tool? <i>(e.g. reports, journal articles, books)</i>	Author & Date	Title Vol pages	Web link (if available)
	<b><i>No external evaluation but the tool has been assessed and critically reviewed by the research team and project stakeholders / potential endusers</i></b>		
	Devisch, Oswald (2008)	'Should Planners Start Playing Computer Games? Arguments from SimCity and Second Life', <i>Planning Theory &amp; Practice</i> 9(2): 209-226	
	Scott, A. <i>et al.</i> (forthcoming 2013)	'Disintegrated Development at the Rural Urban Fringe: Re-connecting spatial planning theory and practice', <i>Progress in Planning</i>	
	Scott, A. <i>et al.</i> (2012)	End of project report submitted to the ESRC/RELU	
		RUFopoly YouTube video – context and description of game. <a href="http://www.youtube.com/watch?v=HaWkN2_6WUA">http://www.youtube.com/watch?v=HaWkN2_6WUA</a>	
		The Relu Project website explains the wider context of the game. 'Managing Environmental Change at the Fringe: Reconnecting Science and Policy with the Rural-Urban Fringe'. <a href="http://www.bcu.ac.uk/research/-centres-of-excellence/centre-for-environment-and-society/projects/relu/overview">http://www.bcu.ac.uk/research/-centres-of-excellence/centre-for-environment-and-society/projects/relu/overview</a>	
	Alister Scott, Rachel Curzon, Claudia Carter and Michael Hardman	Report for participants of event on 30 <sup>th</sup> May 2012: "Reflections on game-playing and future applications of RUFopoly" (July 2012)	

Please add any further comments here:

## Task 4: Your experience of working on the tool

<p><b>Have you done any research/consultancy work on this tool in terms of its development, testing and/or evaluation?</b> <i>If so, please provide an outline.</i></p>	<p>To date over 500 people have played RUFopoly and the outputs of many games has been compiled and analysed. In addition in May 2012 a workshop was held with potential endusers who critically fed back on the purpose / usefulness of the game and whether it could contribute meaningfully to the organisations/remit of the attending stakeholders. The key points and comments raised are summarised below.</p> <p>Reflections and feedback on the RUFopoly game (several of these apply to games as a learning/discussion/decision tool generally).</p> <ul style="list-style-type: none"> <li>• Research concepts embedded in a learning and concrete context</li> <li>• Accessible words rather than jargon used</li> </ul>
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	<ul style="list-style-type: none"> <li>• Facilitates thinking outside the box; allows players to go out of their usual comfort zone</li> <li>• Playing game is fun/enjoyable and dynamic. Important that a low tech board game seems to generate better interaction</li> <li>• Spatial / visual components can bias the outputs</li> <li>• Opportunity for discussion/debate as well as individual reflection (Since there is a limited amount of information available from the game, players rely on their own knowledge and perspectives; hence playing as a group can be more enriching by drawing on different knowledge bases but also potentially more difficult – e.g. bringing out conflicting values and priorities)</li> </ul> <p>See Scott, A. <i>et al.</i> (2012) Report for participants of event on 30<sup>th</sup> May 2012: “Reflections on game-playing and future applications of RUFopoly” [Internal Report].</p>
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<b>Guidance</b>	For Tasks 5-7, please also try to consider the <b>future</b> development and application of this tool in the TABLES project in your answers.
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**Task 5: Incorporating the ecosystem approach (EA) and ecosystem services (ES)**  
*\*\*Please refer to the summary text about ES for concept clarification at the end of this template (appendix)\*\**

<p><b>Using examples (from practice, research or consultancy), explain how EA and/or ES are currently incorporated in/by the tool</b></p> <p><i>If neither approach is currently incorporated, please move to the next question</i></p>	<p>The RUFopoly game arose from research which specifically explored the synergies of spatial planning and the ecosystem approach, focusing around four themes with seven questions relating to each of these: Values, Long-term, Connectivity, Spatial Planning &amp; Ecosystem Services. Few questions explicitly use the terminology of ‘ecosystem services’ or ‘ecosystem approach’ as they are generally not well understood and even environmental experts often struggle with defining their meaning. Instead the game relies on examples and challenges that relate to making choices between different environmental benefits (goods, functions and services).</p> <p>Therefore in the creation of the game, ecosystem services were incorporated implicitly in the questions. However, how far those playing the game appreciate that they are being asked to consider ‘ecosystem services’ is difficult to gauge. Some questions highlight the synergies between environmental, social and economic challenges whereas others require making some trade-offs between these depending on the player’s overriding principles for development/management.</p> <p>All of the questions relate to a specific square on the board (a piece of land with features and functions) which the player needs to examine in order to be able to answer the question. Thus the game is spatially referenced and considers place-making in a specific (if scantily defined) context. The choice of a ‘real’ (i.e. quite common English mixed lowland/upland landscape) yet fictional (the board is an amalgamation of different areas and characteristics) reference point is seen as advantage as the area depicts typical forms and challenges yet is not tied to the ‘baggage’ of a known place thus enabling the player to think about the principles and values underlying their decision-making in a value-neutral context.</p> <p>With regard to other games, such as simulation games (e.g. <b>SimCity</b>), the concept of ecosystems services has to our knowledge not yet entered explicitly into the game yet would indirectly/implicitly be part of the decision-making. As for RUFopoly, it is up to the player whether to emphasize economic growth, aesthetic aspects or environmental</p>
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	features and benefits (Devisch, 2008 referring to Starr, 1994).
<b>How <u>could</u> the ecosystem approach and/or ecosystem services be (further) incorporated within the existing tool?</b>	<p>The concept of ecosystem services is one of four themes in Rufopoly. It is combined with spatial planning. Perhaps it could be drawn out more strongly within specific questions (possibly under all four themes) or made a theme in its own right. Most easily, through using a facilitator the ecosystem approach and the role of considering ecosystem services as part of the decision-making journey through the RUF can be brought out during the game and/or during the post-game debate.</p> <p>Similarly, other games can introduce specific ecosystem services or conditions to reflect the ecosystem approach. New versions and extension packs can develop particular aspects, such as rapid environmental change and EA/ ES.</p>

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

<p><b>Explain how the tool can be situated within the priority questions/criteria that arose in the scoping interviews</b></p> <p><i>Complete as many boxes as required</i></p>	<b>Priority question/criteria</b>	<b>Does your tool address/implement this question/criteria? Or does it have the potential if it was better integrated with an EA/ES approach?</b> <i>Please explain how.</i>
	<b>Language and communication</b>	
	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: The game encourages people to talk about key concepts of the ecosystem approach. The common language of Time, Connections and Values provides a generic framework for discussion across all professions and publics.
	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	<p>High: The game has been played by many people from different backgrounds; a commonly raised point of feedback is that the discussions and clarifications between players around answers/solutions are a key benefit of the game.</p> <p><i>“Value for me is the debate and discussion around the issues. [...] As an individual you can be convinced you have done the right thing but that could be lack of knowledge, own value systems... having that dialogue and debate with another person is really valuable”.</i></p> <p><i>“I liked the question where it stopped all the players. All players had to answer one question together and discuss options - it was interesting, the negotiation, different thoughts and backgrounds came to the fore there”.</i></p>
3. Capacity of the tool to improve or enable engagement across different publics so avoiding	Varies: A game can encourage people to engage outside normal professional workshop type events. <i>“Like it ‘cos it is a game, I mean it’s fun ... original</i>	

the usual suspect problem	... we spend our lives going to workshops! The gaming element is excellent. But that brings its own problems, the game to what end. For example, how do you win the game? I think it's about the right length, the questions are pitched in relation to the material quite nicely".
<b>Learning from experience/pedagogy</b>	
4. Capacity of the tool to help reveal and value 'hidden' assets that are not recognised by communities or publics that use them	High: Possibility of encouraging communities to think beyond their usual concerns and perhaps develop a wider perspective. Could also include specific questions/challenges that highlight/probe into significance of some 'hidden' assets. The dice sets an agenda that prevents the same soap box issues being discussed.  <i>"It made me think of things I wouldn't normally think of, or have to think about".</i>
5. Extent to which tool is building on other tools or EA/ES progress	High: Games have potential to link into existing tools. RUFopoly could relatively easily be linked to initial stages of neighbourhood and local planning; could also link to green infrastructure planning. Could also draw more specifically on agreed framework / lists of ecosystem services and use these more explicitly in some of the questions/challenges. Its flexibility is high.
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?	Varies: The RUFopoly game board and its questions were developed from actual case study occurrences and the experiences of practitioners and action researchers. Therefore although RUFopoly is fictional, the questions and issues raised are grounded in real experiences and occurrences. It is interesting to bear in mind though that having a neutral base to the game has overall had a positive reception (rather than adapting the base map to an actual location familiar/local to the players).  There is considerable scope for local communities to develop their own questions using maps of their own area.
7. Extent to which the tool is open to interpretation and application in a variety of forms (that reflect 'cultural' differences)	High: RUFopoly has many questions which have open answers to allow an opportunity for discussion rather than being forced to choose a traditional response.  <i>"... if it was online it would be a different sort of experience. There is a lot of value in how it is now".</i>
<b>Developing and selecting tools</b>	
8. Is the tool dependent on a specific funding source? How	N/A. Relatively cheap to develop/print in its basic form as long as used for educational purposes. The



	onerous is the application procedure? What are the chances of success?	tool can be used to support dedicated funding programmes such as for localism (planning aid).
	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?	Varies: Many games require a basic level of skill awareness. In interactive games like Rufopoly there is a need for a facilitator team to be present to ensure maximum value and information.
	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)	The rise of localism and associated neighbourhood plans, duty to cooperate and production of new local plans all offer opportunities for more innovative and creative forms of consultation. These hooks have led to BCU being approached for facilitated sessions.
<b>Informing resultant policies effectively</b>		
	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?)	High potential: The game under its four themes of Values, Connections, Long Termism and Ecosystem Services & Spatial Planning offers an opportunity to discuss environmental, economic, social implications, and probing into synergies as well as potential conflicts. <i>“that it’s very concrete, it gives you a concrete way of looking at things which for someone who isn’t a planner is really helpful and all the sort of different issues are represented in a concrete way”.</i> <i>“I liked the spatial awareness it gives you... that you are looking beyond the site... you are looking from a much higher perspective”.</i>
	12. How does the tool link into the planning system (applications and processes). At what cost / extra burden?	High potential: No formal link at present but opportunity to use within consultations and plan development process. See also point 5 above.
<b>Delivering management objectives</b>		
	13. Suitability or capacity of the tool to assist with managing visitor needs and pressures within protected areas / the considered area? How?	Varies: There are dedicated questions which specifically address this theme. The dice will determine whether people answer it.
<b>Local ownership/new governance</b>		
	14. To what extent can the tool assist in developing statutory plans (local and management plans) and improve ownership and use by publics?	High Potential: Clear opportunity here.
	15. To what extent does/could the tool contribute to a new form of community governance in management of the environment?	Varies: Some potential here in terms of stimulating dialogue and exploring options. However limitations exist.
<b>Improved tools: understanding flows, interconnections and spatial issues</b>		

<p>16. Capacity to improve spatial understandings of the flows and interactions of various ecosystem services between sectors and at different scales</p>	<p>Unclear: Although RUFopoly includes questions on ecosystem services how far this is understood in terms of ‘flows and interactions of various ecosystem services between sectors and at different scales’ has not been explored. The scale issue is not well covered.</p>
<p>17. Capacity of the tool to reconcile assessments of options and benefits across different scales (and sectors)</p>	<p>Untested: At present the base map of RUFopoly is of a limited scale area encompassing parts of a town, villages, green belt and open land. Opportunity for developing base maps and questions for different scales from city to rural. Potential to explore this more easily through computer based games.</p>
<p>18. Extent to which the tools is capable or can be manipulated to work across sectoral and administrative boundaries</p>	<p>Questions in RUFopoly relate to the square the counter lands on (i.e. a specific location / place) but some questions pose cross-sectoral and cross-boundary questions. This aspect could be developed in a further iteration of the game.  Games like SimCity have such interlinkages built in.</p>
<p>19. Extent to which the tool can handle data shortages and gaps (or is effectiveness considerably compromised?)</p>	<p>Games such as RUFopoly and SimCity can be played with limited information though a better knowledge base / learning on the game may provide better outcomes / justifications for decisions. <i>“I liked the game element that you had to move around the table, quite dynamic ... requires a little bit of prior knowledge or ability to decode the shapes and the colours [the gameboard map]”.</i></p>
<p>20. To what extent has/could the tool put landscape/nature conservation and designated species/sites on the radar (positively or resulting in resentment?)</p>	<p>Elements of this are covered within RUFopoly but it is up to the player to what extent they take conservation status on board. Some players may lack the actual knowledge and awareness of conditions associated with certain designations.</p>

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

*Where possible, this analysis should reflect the tool's past and current application, as well as its effectiveness in policy and decision making processes*

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

The game provides an opportunity for players, from many different backgrounds, to consider (and discuss) a range of real environmental decision making issues in the safe environment of fictional Rufshire.

There is flexibility to change the format of the game to include individuals, groups as part of a learning and engagement activity.

Rufopoly has been able to engage with business, community, and environmental groups of all ages. Decision makers value the reflective experience it necessitates.

Simplified complex concepts and terms into a fun learning environment.

Engages publics and decision makers.

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

The random nature of playing the game (only questions landed on by the throw a dice are answered) means that some themes or issues are not tackled or that some themes may be covered too much.

Games are too abstracted from reality to inform a particular local context.

*"The introductory question is the big issue that most Local Authorities face at the moment... which the government hasn't been able to crack... national house building especially in green belt and the urban fringe and most of the questions we got into were the nitty gritty that authorities face everyday... there was a gap between the big issue and the small"*

*"It is a physical game, the more information you add the more complicated it gets and I think one of the advantages of an online game is you can stage the game, far easier online..."*

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

The gaming environment is one which has not been fully exploited in this area of policy and decision making. SimCity provides one example. More interactive games could help improve public engagement and understanding.

New versions (amend/change map and or questions), different media (board, digital, app).  
New games being developed as part of other research and knowledge exchange projects.

Various options are considered for further development/application including:

- Development as an adult / higher education / 6<sup>th</sup> form / school educational tool
- Training tool for planning committees (elected members specifically)
- Build a bank of questions for different situations
- Development of 'extension packs' or multiple versions of the game - urban, coastal, upland, river catchment areas

As part of this, the more explicit application of EA and mention/considerations of a range of ES could be further considered.

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

Classify these by their "seriousness" and "probability of occurrence" in the table below, and pay particular attention to the threats associated with potential use of ecosystem approach/ecosystem services.

Threat	Seriousness (high, medium, low)	Probability of occurrence (high, medium, low)
Copyright issue – in relation to further development of the game at the right time.	Medium	Medium
It is seen as a game and not used to help with realities of decision making.	Medium	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**

Experience of other specific games would be useful to add and reflect on.

# Appendix

## Summary text to provide conceptual clarification on Ecosystem Services

