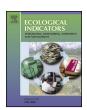
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# Assessing the use and influence of sustainability indicators at the European periphery

Louis F. Cassar<sup>a</sup>, Elisabeth Conrad<sup>a,\*</sup>, Simon Bell<sup>b</sup>, Stephen Morse<sup>c</sup>

- <sup>a</sup> Institute of Earth Systems, University of Malta, MSD2080, Malta
- <sup>b</sup> Communications and Systems Department, MCT Faculty, Open University, Milton Keynes MK7 6AA, United Kingdom
- <sup>c</sup> Centre for Environmental Strategy, University of Surrey, Guildford, Surrey GU2 7XH, United Kingdom

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#### ABSTRACT

Malta is a member of the European Union (EU), but faces constraints unique to its status both as a small island nation and its geographical location on the periphery of the EU. Several initiatives to develop suites of sustainability indicators (SIs) have been attempted in the Maltese Islands over the past two decades but there has been little corresponding follow-up to examine the extent to which such SIs are used by practitioners and influence policy. This paper presents an assessment of the use and influence of SIs in Malta by drawing upon the results of two quite different means of enquiry: (i) a more traditional approach in the social sciences using semi-structured and one-to-one interviews conducted with key stakeholders involved with SIs in Malta, and (ii) an innovative participatory approach, called Triple Task (TT) implemented within a workshop context, where stakeholders were placed in teams and asked to explore the use of SIs. Based upon the results obtained with these two methods of enquiry the paper provides insights into the problems of adoption of SIs in Malta and makes the case that rather than being seen as mutually exclusive, a combination of the two approaches provides a powerful means of triangulation to what is a complex set of issues.

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#### 1. Introduction

The use of sustainability indicators (SIs) has become increasingly popular in strategic planning and policy-making (for example see: Rigby et al., 2000; Caddy and Seijo, 2005; Hezri, 2005; Hezri and Dovers, 2006; Rosenström and Kyllonen, 2007). There is, however, evidence to suggest that the actual use and influence of indicators is often modest or indeed entirely lacking (e.g. Bell and Morse, 2001; Rosenström, 2007; Turnhout et al., 2007), and can be hampered by a variety of barriers and obstacles. The latter may include both general factors related to the nature and design of indicators and of the policy-making/strategic processes, as well as factors related to the specific context within which SIs are used. The latter may include, for example, the state of sustainability strategic planning in the country, prior experience with indicator development and use, national policy, monitoring and reporting commitments, resource availability (Hezri, 2005; Bell and Morse, 2011) as well as the ways in which SIs are communicated (Chess et al., 2005) including the extent to which they are picked up and reported in the media (Morse, 2011). Hence, research relating to indicator use and influence needs to consider the geographical, economic and cultural context within which such tools are implemented.

Based on this premise, the paper explores issues of SI use and influence in the Mediterranean country of Malta. Whilst Malta is a full member state of the European Union it faces constraints unique to its status as a small island state and to its geographical location on the southern European periphery. Additionally, it is a recent entrant to the European Union (2004), and a country with a relatively young history of sustainable development; the first spatial planning and environmental management instruments only came into force in the early 1990s. Malta is also characterized by a heavily centralized governmental structure (Pirotta, 2001) which, coupled with the social dynamics of a small island society living for the most part in a highly urbanized context, can present unique challenges for sustainable development. These factors distinguish Malta from much of the European mainland, and arguably provide for a distinct experience with the implementation of sustainability planning.

This paper is based on the rationale that there may be context-specific constraints to the use and influence of SIs and seeks to explore some of these within the island of Malta. Given the points made above, the island state provides an interesting context for exploring the assumption outlined above. However, it should also be noted that this provides something of a significant challenge given that the influence of SIs may not necessarily be direct in a cause–effect sense but may be far more subtle. Terms such as 'use'

<sup>\*</sup> Corresponding author. E-mail address: elisabeth.conrad@um.edu.mt (E. Conrad).

or indeed 'influence' can have a multitude of different meanings and thus are highly nuanced. Also of importance is the range of potential stakeholders who may be involved, spanning civil servants from various ministries as well as non-governmental agencies and the private sector. Thus the means by which the topic is explored can also be very important. After all, how the question is asked can have a significant influence on the answers received, a point exemplified in the classic paper published by Frances Griffiths in 1996. Preconceptions, reflexivity, theoretical frame of references all have an impact (Malterud, 2001) in social science research. Hence in order to explore the influence of SIs in Malta it was decided to follow two pathways, one employing the conventional social science method of semi-structured and individual interviews and the other utilizing a participatory approach called Triple Task (TT). Both approaches are qualitative rather than quantitative in nature (Crang, 2002), which may perhaps be ironic in the sense that SIs are of course for the most part numerical tools sometimes derived from quite complex arithmetical and statistical permutations. Conversely, however, the indicators (on the one hand), and the methods used for assessing their effectiveness (on the other) may (and do) pertain to different research paradigms. The additional, and at times alternative, depth and flexibility provided by qualitative methods can be seen to be challengingly suited to teasing out the nuances affecting indicator use and influence - especially, we would add, in contested contexts of discourse.

It was anticipated that the separate and blended outcomes from the two methodologies being used in this study (semi-structured interview/Triple Task) would yield some similar insights but also, potentially, some differences. Hence this paper has the key aim of providing an indication of the extent of use of SIs in the context of a small-island state on the periphery of Europe, and also seeks to draw inferences on their likely influence. Furthermore, the paper will show that the mode of enquiry may have an influence on answers obtained, through the use of two contrasting methodologies. The paper presents the findings arrived at from the two approaches separately before bringing them together into an overall picture of SI use in Malta.

The paper will begin by setting out the historical context of SIs in Malta. Although sustainable development has a short history in the country, there have been a number of SI initiatives and it is important to set these out for the reader. The paper will go on to describe the methodologies adopted for exploring the SIs that have arisen out of these initiatives and the influences that they may have had.

The research summarized in the paper was part of a larger project entitled POINT – *Policy Influence of Indicators* (Contract no. 217207, funded by the European Union FP7 Programme).

#### 2. Background to sustainability indicators in Malta

There have been a number of initiatives for developing SIs in Malta in recent years, at both national and regional levels (Table 1). One of the early significant attempts at national scale was through the establishment of the *Sustainability Indicators Malta Observatory* (SI-MO). The aims of the observatory were to establish and increase capabilities for monitoring/reporting of environmental parameters and SIs in Malta. SI-MO developed a set of SIs based on a methodology proposed by the Mediterranean Commission for Sustainable Development (MCSD) (Cassar, 2006), in collaboration with the Malta National Office of Statistics. The 130 indicators identified within SI-MO, based on the MCSD guidance, were subsequently reduced to 100, as (i) 3 indicators were found not to be relevant to the local context, and (ii) data for 27 other indicators could not be obtained (Cassar, 2010). During subsequent SI-MO activities, key concerns relating to SIs, and specifically to data availability and

quality were observed, notably (i) lack of data in certain areas, (ii) lack of standardization and coherence in the way data were compiled, and (iii) variations in data provided by different agencies/departments.

The Blue Plan Coastal Area Management Programme (CAMP) project was a more regional-scale initiative, based in the north of the island (Bell and Morse, 2003). The 'Imagine' methodology utilized (Bell and Morse, 2001; Bell and Coudert, 2005; Larid, 2005; Bell, 2011) was designed to arrive at a list of SIs via participation with a range of local stakeholders, mostly comprising government staff from concerned ministries. Imagine was originally inspired by the soft systems approach of Peter Checkland (Checkland, 1981) and the ideas of a 'systemic sustainability analysis' set out in Bell and Morse (1999) which were founded on the key assumption that, given the complexity of sustainability and the fact that there are multiple perspectives, SIs are best developed with the participation of key stakeholders, including those meant to use them. The methodology evolved through a series of 'flavours' (variations on a theme), from Systemic Sustainability Analysis (SSA; the initial form or 'theoretical framework' of the approach) through to Systemic and Prospective Sustainability Analysis (SPSA) and finally Imagine. The overall aim throughout was to produce SIs in a manner which maximizes their chances of producing a holistic perception of the context in question, and in an inclusive and participatory manner (Plan Bleu, 2002).

The National Commission for Sustainable Development was set up in 2002, with one of its stated objectives being to review progress in the achievement of sustainable development. The outputs of the NCSD have included work on a National Strategy for Sustainable Development for Malta, covering the period between 2007 and 2016. The strategy was adopted by the National Commission for Sustainable Development in November 2006 following stakeholder consultation exercises. It should be noted, however, that the Strategy remains in draft format and at the time of writing has not yet been endorsed by Government. Indeed, in its present state, it is clearly noted that "the views expressed in the document do not necessarily reflect those of the Government of Malta". With regards to SIs, the strategy specifically notes that "the effective monitoring of sustainable development requires the compilation of appropriate indicators". The strategy further notes that although SIs have been compiled for Malta (as described above), there are still a number of issues that need to be addressed, in particular regarding institutional set-up, as at the time of writing, there is no state-funded body entrusted to develop SIs.

The National Statistics Office (NSO) also has a role to play in the monitoring of sustainable development in Malta. The NSO constitutes the executive arm of the Malta Statistics Authority. It includes directorates dealing with (i) economic statistics, (ii) business statistics (including environment and resources), (iii) social statistics and information society, and (iv) resources and support services, and is thus in a position to collect, analyze and present data relevant to sustainability. Some work on SIs has also been carried out by the Malta Environment and Planning Authority (MEPA), primarily as part of the compilation of *State of the Environment* reports and through relevant projects such as DEDUCE (Biblioteca de Catalunya–Dades CIP, 2007) (Table 1). MEPA is also represented on the National Commission for Sustainable Development.

Thus although sustainable development may be relatively new in Malta it can hardly be claimed that there has been little work with SIs. Indeed the raft of SI initiatives all taking place within a very short period and indeed within the context of a relatively small island state should arguably have had an influence. In other EU countries sustainable development has a longer history within policy and these countries tend to be larger both in terms of population and in the scales of their administrations. Malta thus represents a relatively small geographic and social space for SIs to be active. It

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