Delivering sustainability therapy in a projectified world

Conference or Workshop Item

Delivering sustainability therapy in a projectified world

Simon Bell[1] and Stephen Morse[2]

[1] Centre for Complexity and Change,
Open University, Milton Keynes s.g.bell@open.ac.uk
Telephone and Fax: 44 (0)1953 604594

[2] Department of Geography,
University of Reading, Reading s.morse@reading.ac.uk
Telephone +44 (0)118 3788736
Fax +44 (0) 118 9755865

ABSTRACT
This paper explores the apparent contradiction between the 'linearity' of most Sustainable Development projects, with time-bound and defined outputs achieved at a fixed cost, and an implied 'circularity' of the theory whereby there is no 'end'. Projects usually have clear parameters within which they are implemented, and the inclusion of elements such as the need for accountability, measurable impact and 'value for money' have grown in importance. It could be argued that we live in a 'projectified' and therefore linear world. The paper explores the potential contradiction between 'linearity' and 'circularity', and suggests that one way around this is to frame the project within a form of the Kolb Learning Cycle heuristic. This will facilitate a rationalisation from those implementing the sustainable development project as to why decisions are being made and for whom. If these questions are opened up to the project stakeholders, including beneficiaries, then the Kolb cycle could encourage learning and understanding by all involved. It could also provide Sustainability Therapy to those trapped in processes which they find orthogonal to their own perceptions. It is suggested that such learning, therapy and reflective practice should be a valid output of the sustainable development project, although typically the focus is only upon the final outputs and how they feed into policy. Ironically funders would be well advised to take a broader perspective in order to achieve true 'value for money' within such projects, even if learning is not an easily measurable or tangible outcome. These points are explored within the context of the wider literature and sustainable development projects undertaken in Malta and Lebanon.

Key words – sustainable development, projects, Malta, Lebanon

1. Introduction: The 'doing' of sustainability

There are many appealing aspects to sustainable development as epitomised by the most commonly quoted definition from the Bruntland Commission *"Development that meets the needs of current generations without compromising the ability of future generations to meet their needs and aspirations."* (WCED, 1987). Aside from the key issues of equity, morality, theory and practice perhaps the aspect of sustainable development that is most striking is the symbolism and imagery employed by those that write about it. This is rich with interlocking circles, systems diagrams, AMOEBA, RADAR, KITE graphs and even 'dashboards'. Perhaps no other sphere of environmental management has been presented so visually, and one can delight in the imagination taken to construct such images. Diagrams and images are able to show relationships and linkages which written words often fail to convey, and they highlight the very soul of sustainability – its vibrant embracing of multi-disciplinarity, richness and diversity in perspective. However, perhaps the essence that constantly emerges out of sustainability imagery is 'circularity'. Circles express something inclusive and which never ends - there is no 'closure' to the process. People and society constantly changes and what comprises sustainability changes with it.

Sustainability is also a highly-dimensioned concept (Bell and Morse, 2001, 2003). As well as the conventional notion of embracing social, economic and environmental dimensions sustainability also has time and spatial dimensions, even if these are somewhat vaguely defined. However, in practice the implied boundlessness of the sustainable development imagery become firm, rigid and linear. It is here that the appealing philosophy of sustainability has to enter the often harsh and contradictory reality of application. After all, we live in a political-economic world where there is increasing competition for limited resources, greater demands for accountability and the delivery of 'end products' along with an underlying emphasis on 'value for money'. The appealing circularity and richness of sustainability imagery has to survive this harsh environment, with the result perhaps something is lost in the compromise.

The conventional means to achieve accountability and 'value for money' in sustainable development is typically via discrete, costed and closed periods of spend and exertion; the project. It is by the means of the project that agencies manage the vast majority of their work and appear credible to the donors (public and private) who make their interventions possible. In short, the environment in which researchers and practitioners are trying to achieve sustainability is typically linear and 'projectified'. The richness of sustainability transforms into a focus on just one component of a system, important perhaps to but a few people, for only three years at a fixed cost. Many dimensions become but a few. Maybe it is this translation from systemic and boundless to mechanical and limited that explains the contradiction with sustainability referred to time and time again: its popularity in theory yet comparative wretchedness in practice. The frustration amongst those who care about sustainability has been all too apparent. For example, there is the following quote from Meppam and Gill (1998):

"*Sustainability describes a state that is in transition continually:*

1) the objective of sustainability is not to win or lose and the intention is not to arrive at a particular point.
2) planning for sustainability requires explicit accounting of perspective (world view or mindset) and must be involving of broadly representative stakeholder participation (through dialogue)
3) success is determined retrospectively, so the emphasis in planning should be on process and collectively considered, context-related progress rather than on achieving remote targets. A key measure of progress is the maintenance of a creative learning framework for planning.
4) Institutional arrangements should be free to evolve in line with community learning.
5) the new role for policy makers is to facilitate learning and seek leverage points with which to direct progress towards integrated economic, ecological and sociocultural approaches for all human activity.

This describes a move away from a culturally inappropriate, exclusive epistemology of positive and normative definitions to a process that facilitates reflective insight and the genuine sharing of ideas."

This is where the issues of concern begin to manifest. The interplay between the circular and rich rhetoric of sustainable development as a theory and an appealing human concept with artistic, ethical and religious overtones (these arguments are set out more fully in Bell and Morse, 2005) and the compromises that exist in mundane and compromised practice.

This paper has emerged from a number of experiences the authors have had working in sustainable development projects in the Mediterranean – the practice of sustainability as distinct from theory. The first part of the paper will set out some of the issues that arose from this experience, while the second will put forward what the authors hope will be a positive suggestion for handling at least some of the more critical issues.

2. The problem: sustainability through projects?

It first has to be said that the authors have much experience of working in a variety of development projects funded by a host of donors such as DFID and other bilateral aid agencies, United Nations, World Bank and non-government organisations. Most of these have operated on the basis of the modernisation agenda in development (Cowen and Shenton, 1996). However, there are many different types of development 'project', and the term is usually applied to activities which are discrete in terms of time period, the people involved, the desired outcomes and perhaps above all the resources required. Those providing the latter understandably want the most impact for the resources allocated, and as a result there has been an increase in the use of tools such as the logical framework (Logframe) to help set clearly defined goals and means of assessing whether they have been reached. Figure 1 provides an example of the conventional Logframe structure favoured by various funding agencies. The theory and practice behind the use of Logframes are described in great detail elsewhere and will not be covered here (PCI 1979; Coleman 1987; Cordingley 1995; Gasper 1997, 1999; Bell 1998, 2000). A summary of the Logframe structure is provided as Figure 1. There are four rows representing:

1. project goal
2. project purpose
3. project outputs
4. project activities needed to produce the outputs

Goal	Strategic Indicator	Means of verification	Assumption/ risk
Purpose	Sustainability Indicator	Means of verification	Assumption/ risk
Outputs	Impact indicator	Means of verification	Assumption/ risk
Activities	Performance indicator	Means of verification	Assumption/ risk

Figure 1. Logical Framework

The matrix in Figure 1 is very much a linear one: goal → purpose → activities → outputs. Once outputs have been delivered the project officially ends and resources may be deployed elsewhere (Morgan, 2002). It can also be seen that indicators play an important role. There are two columns for indicators – one which lists the indicators needed to verify achievement of goal, purpose, activities and outputs, and a second column which summarises the data necessary to arrive at the values for the indicators. For example, indicators at the activity level (row four of the Logframe) might be thought of as measures of performance, of things in process - Performance Indicators (PIs). For the project goals the strategic aims of the project in organisational terms is assessed and here there are Strategic Indicators (StIs). For project outputs the indicators are measures of finalised activities - Impact Indicators (IIs). The purpose of the project can be thought of in terms of an enduring achievement. Once the project ends it is usually required that the impacts will continue, and even intensify, rather than evaporate, and this can be equated with 'sustainability'. Indicators of project purpose can be equated with Sustainability Indicators (SIs).

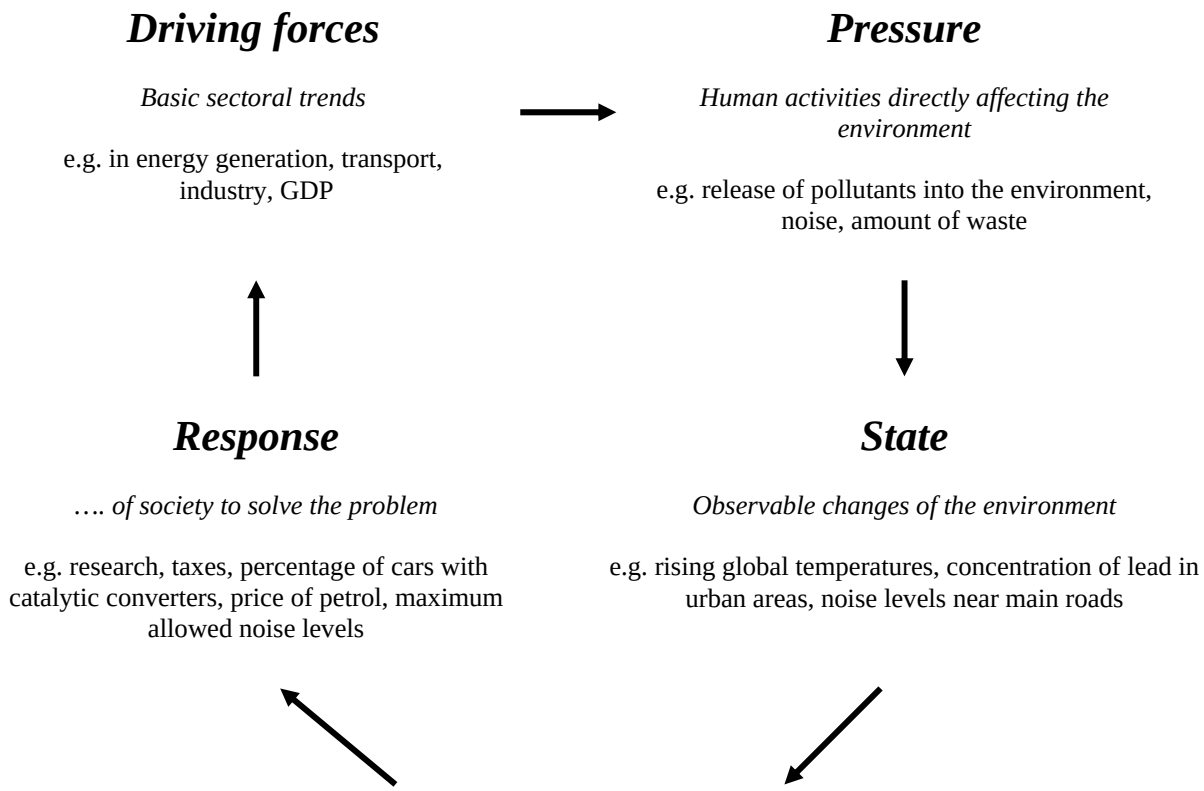


Figure 2. SIs - Pressure, State, Response

The sustainable development literature is increasingly replete with calls for SIs as tools for the measurement of progress towards attainment, and examples abound of all styles and approaches (Bell and Morse, 1999, 2003). SIs may or may not be formally organised into cause-effect (i.e. pressure-state-response) models such as Figure 2, and practitioners vary a great deal on what is the most suitable group to create the list and do the monitoring. Some favour a 'top down' or technocratic process with experts setting the agenda, while others favour a more 'bottom' up' style with significant participation from stakeholders who will be affected by the application of the SIs as part of policy. Whether SIs are actually used or become an end in themselves has the subject of much debate (King et al., 2000), and their influence in helping to set policy is a relatively new area of research (Dhakal and Imura, 2003; Gudmundsson, 2003).

The literature is rich with critical observations regarding the use of Logframes, and specifically their weaknesses in culturally and developmentally diverse contexts. Dale (2003) suggests that it's ubiquitous use and sequential nature makes it almost too easy to use - it can become a potential straightjacket for projects of all kinds. Crawford (2003) argues that other information tools are needed if the Logframe is to be truly effective in any attempt at monitoring and evaluation whilst den Heyer (2002) suggests that other factors need to be incorporated into the Logframe if it is to enhance learning. Possibly more fundamentally Crawford (2003) sees Logframe as part of a threat to local participation and democracy in projects of all kinds and

Kumar and Corbridge (2002) suggest that the framework can be part of a process which will see projects fail because of unrealistic assumptions built into the project management process. But all of this would appear to contradict the very soul of sustainability. Unfortunately there is a tendency in conventional 'blue print' project processes to require exact clarity on outputs before projects prior to inception (see Cusworth and Franks 1993, pp 8-11). This exactitude can militate against progressive learning processes within projects and for emergent outcomes to arise as projects progress. It can also inhibit local people setting and changing agendas. At a basic level existing facilities may be used as a way of keeping down costs, and staff may be co-opted onto the project with minimal or perhaps no release from their usual duties. The result is that sustainable development activities may be layered onto the authorities other mandates.

The linearity and emphasis on defined end products (i.e. targets) in projects has contrasted in more recent years with a growing literature on the importance of learning within development projects and indeed within policy and politics (May, 1992, 1999; Busenberg, 2001). Here learning is seen not just as an intellectual and academic phenomenon linked to 'training' but as a process that facilitates a change of practice. Learning in this context is seen as more than just a means by which individuals can better understand the position they are in, but also doing something about it. However, despite this growing interest Carlsson and Wohlgemuth (2000) have been moved to stress that "*learning in development co-operation is more of less virgin territory for organisational research*". Indeed Brown (1998; page 62) points out that "*Although the term learning has become fashionable in the mainstream management literature in the 1990s, its application to the development arena is fairly limited and it is often used with an assumed rather than a defined meaning*". But who are these individuals? It is important to distinguish between organisation learning, learning that takes place within an organisation charged with funding or implementing projects, and learning which the project facilitates amongst those meant to benefit from the project. The former includes the Soft Systems Methodology of Peter Checkland (Checkland, 1981, 2001; Checkland and Scholes, 1990, Checkland and Jayastna, 2000) developed in the 1970s. While Soft Systems Methodology, and indeed all of the varied style of approaching organisational learning, have their critics Probert (1997, 1998) they do aim to help draw in the experiences of those working in organisations so as to arrive at a 'shared mental model' of how the organisation works and how improvements can be made (Senge, 1990).

The need for 'learning' is especially apparent in sustainable development projects, especially in contexts where those meant to benefit are those with the least power to influence the process. In the 1970s learning from intended beneficiaries was largely extractive in nature and often referred to as 'appraisal'. Those working in projects 'learnt' from those meant to benefit with an assumption that the former would then make changes to improve the process and outputs. Since the 1980s such 'learning' has evolved into more inclusive approaches such as 'action research' and Participatory Learning and Action. While there are similarities between organisational and beneficiary learning, and indeed there can be overlap, it is as well to remember the polarities in power that exist here. For example, the donors of projects have the power to set the agenda for those to whom they provide resources and can, in effect, stipulate the form of any learning that takes place with those resources, or indeed ignore learning altogether as an outcome.

While 'learning', be it for the organisation, beneficiaries or both, has much appealing rhetoric, like sustainable development the practice may be far from perfect. A project would inevitably have to devote resources to the facilitation of learning, yet an evaluation of learning as a formal component of the 'blueprint' can be problematic. Brown (1998), for example, suggests a number of indicators that can be used to formally evaluate organisational learning:

1. time devoted to reflection and action
2. means by which the organisation deals with 'discordant information' (attitude towards learning)
3. organisational capacity to carry out and use the results of evaluations (predisposition to learning)

Even so there may be pressures to "*fiddle the data*" in order to make the organisation appear better than it is (Brown, 1998; page 65).

But how is learning to be handled within the mechanistic and linear format of Logframes? At a basic level, of course, it may be possible to count the number of workshops and participants who attended over the lifetime of the project and present these as PIs. Indeed in the authors experience this is the most common way of including indicators of learning. But can learning during the project also be thought of as an output? This may seem more radical, but is perfectly consistent with the notion of a project acting as a spark to providing a more enduring achievement. Indeed there are increasing calls for institutional learning within development projects to be seen as part of an evaluation process (Horton and Mackay, 2003). If learning is an important element of sustainable development how can indicators of project purpose and output be created to reflect learning?

Working with the assumption that projects are here to stay the second part of the paper will seek to suggest ways in which some of the issues discussed above can be addressed within sustainable development projects. These ideas are explored and tested in the context of two Blue Plan[1] projects: CAMP in Malta and Lebanon. These had elements of the 'blue print' mode with the end product (the 'deliverable') being a list of SIs. While the emphasis was on a participatory style in arriving at the list of SIs, learning *per se* was not defined as an outcome of the project. In effect the participation was a process designed to facilitate arrival at a good quality end product, and learning may take place as a part of this. Within this process there arose all sorts of contradictions and friction between the 'doing' of the project, measures of success (or failure) of the project, stakeholder participation and learning. Could this not be improved upon? Can the project line be curved into a circle while at the same time keeping all of the criteria for accountability, 'value for money' intact? These were but some of the questions the authors began to explore.

3. Blue Plan projects in Malta and Lebanon

Within the limits of this paper it is not possible or necessary to discuss the full background to the work of the Mediterranean Action Plan (MAP) and the series of Coastal Area Management Programmes (CAMPs) which are undertaken by the range of agencies and organisations associated with MAP. Suffice to say for the sake of the coherence of this paper that there are two main agencies which the authors worked with under the auspices of CAMP. The first and the direct contacting agency was the Mediterranean Blue Plan Regional Activity Centre. Blue Plan, with funding from UNEP, is concerned with systemic and prospective analysis and with developmental/environmental scenarios which are required by CAMPs. The Blue Plan regional activity centre is located on the French Riviera in Sophia-Antipolis, near Nice, and .the organization works in partnership with projects in the Mediterranean, encouraging certain activities and facilitating processes. It is not in a position to dictate to local agencies or to demand adherence to a top down policy, but it does help set out the form of the projects with which it is involved. Blue Plan has a tradition of focusing on holistic forms of enquiry and systemic development of sustainability indicators.

"*The image-rich term, 'Plan Bleu' (Blue Plan) has several meanings:*

1. *A process of reflection on the Mediterranean region in all its vastness and complexity;*
2. *a research centre where this reflective process is carried out;*
3. *and the infrastructure of a non-profit organisation for management and operations.*

Through its think-tank approach, the Blue Plan provides a package of data as well as systemic and prospective studies, combined in certain cases with proposals for action, which are intended to provide the Mediterranean countries with useful information for implementing sustainable socio-economic development that does not result in degradation of the environment"

Extract from the Blue Plan website (http://www.planbleu.org/indexa.htm)

[1] Blue Plan for the Mediterranean, 15 Rue Beethoven, F-06560 Valbonne Sophia Antipolis, France.

The second organisation involved in the CAMP programme is the Priority Actions Programme Regional Activity Centre (PAP RAC) which is based in Split in Croatia. PAP has developed a strong expertise in coastal area management and acts as the CAMP implementing centre.

At the time of the Malta CAMP, the first which the authors were involved in, there had already been several such projects in different parts of the Mediterranean including Greece, Tunisia and Egypt. Each CAMP has its own focus and central issues of concern but the overriding issue of sustainability has been constant throughout. The main variation with the Malta CAMP project was the inclusion of participatory techniques as the means selected to derive SIs that had local meaning and value.

The Malta CAMP was focused on the North West of the island (Figure 3). Within this geographic area it was further organised into five thematic sub-projects, and three cross cutting sub-projects. The five thematic areas were:

1. Sustainable Coastal Management
2. Marine Conservation Areas
3. Integrated Water Resource Management
4. Erosion / Desertification Control Management
5. Tourism: impacts on health

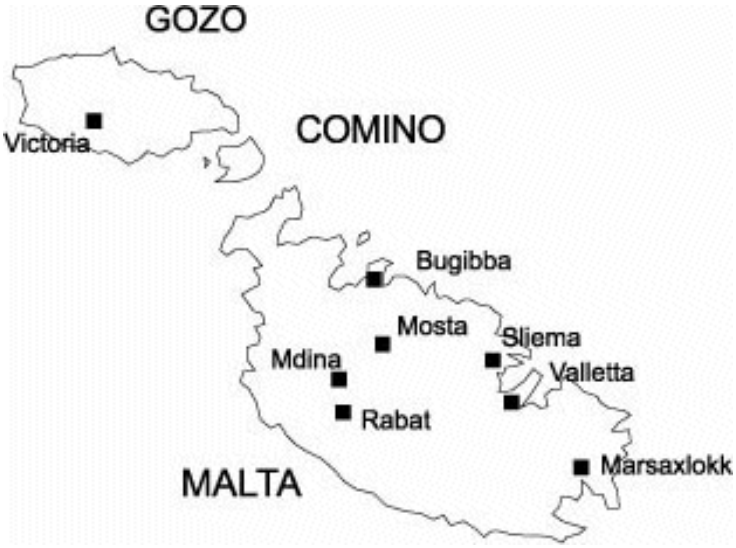


Figure 3 The island of Malta

These five were devised from a separate process undertaken by the Maltese government working in liaison with members of PAP RAC. They were pre-selected prior to the indicator activity, and thereby formed the headings within which the SIs had to be developed.

The three cross cutting sub-projects (so named because they were seen as being support projects to the five thematic sub-projects) were:

1. Data Management
2. Participatory Programme
3. Systemic Sustainability Analysis (SSA)

These were seen as supporting the main CAMP activities by providing a central place for the establishment of all statistics, maps and other data required by the five thematic teams, a common set of participatory techniques for use in all stakeholder workshops throughout the

CAMP and common indicator development and presentation methods. The SSA component was the one charged with delivering the list of SIs for each of the thematic areas, and was an extension of the Soft System Methodology. SSA had an overarching and inclusive role within the CAMP and to some extent had operational relations with all the other sub-projects. In the inception document prepared by PAP (2000), a document which sets out the nature of CAMP Malta, including time scale and main activities, the actions to be implemented by SSA were identified as:

" - identification of and agreement on the system, stakeholders and main sustainability indicators
- participatory development of the systemic sustainability analysis with description and assessment of the system by main indicators
- provision of inputs to final Project documents and post project activities, and
- proposal for dissemination of results for scientific and lay communities."

For the purposes of this paper, however, SSA can be broadly divided into three stages that bring out the points relevant to this paper. In practice each of these corresponds to at least one visit to Malta by one or both of the authors.

1) workshops with the thematic teams
2) stakeholder workshops
3) an analysis of policy options and setting out the framework for future development and use of indicators

The first SSA workshop took the form of a one day event held in March 2000. Initially the stakeholders engaged in the SSA process comprised the internal, thematic teams and they worked together with the SSA team to define the key ideas behind sustainable development and the indicators that they were likely to want to develop. Hence a large part of the workshop was designed to allow teams to share thinking and gain an overview of the demands that the SSA process would put upon them. The teams were later encouraged to take their ideas out to stakeholders that they themselves identified as relevant for their particular theme.

The outcomes of this first stage of SSA were rich pictures of the participants' perspective of the current situation, root definitions or visions for the way forward, conceptual or activity models of how to get there. In some cases Logical Frameworks for the setting of indicators emerged from this process. In terms of the overall SSA process, the Logframe can be made to emerge from the soft systems review and can then provide for the development of a formal project. A concern of many agencies relating to the use of soft systems is that the work is not easily reportable or demonstrable to auditing authorities. Similarly, in the experience of the authors there is often a worry in teams that the work which they have undertaken in soft systems will be seen as being non-rigorous or un-professional because of its use of diagrams and unfamiliar terms. The Logframe can be used as a means to express the soft work in a more structured and formal manner, and hence provide a useful bridge between conventional and less conventional project structures.

The second stage of SSA was centred on meetings with the stakeholder community. The main purpose of the stakeholder meetings was to discuss the work of the teams so far achieved, explain the nature of the SSA process and seek ideas and questions from the wider stakeholder group and specify indicators and reference conditions (what values of the indicators are needed for sustainability). Stakeholders included representatives of key industries like tourism and fisheries, concern groups like the Gaia foundation and official bodies such as local councils. The selection of stakeholder groups was left to the discretion of the Maltese SSA team. In all circumstances such selection is problematic. How representative is the sample? How many constituencies of interest are represented? Have some constituencies been excluded or overlooked? Such questions are valid, hard to check and a cause for concern for all participation projects.

Each of the thematic teams presented their indicators and explained why and how they had been selected. Often the natural instincts of teams in the context of stakeholder groups is to be defensive and even protective of the work undertaken and to deflect criticism as being either poorly conceived or maliciously devised. The understanding of the principles of active listening and the adoption of focus group methods were the means adopted to attempt to avoid these negatives. The overall impact of the presentations was to provoke a wide ranging conversation concerning the future of Malta and the need for sustainability planning.

The third stage of the SSA project was focussed on using the indicators collected so far to make different assumptions of evolution in the future, given various policy decisions, as to future scenarios. In the original SSA this issue of futurity and scenario investigation was included but not requiring any specific methodology. In the case of the Malta project this was modified, making use of the 'Prospective' approach (for more detail on this approach see Godet et al., 1999; Godet, 2000, 2001) as previously applied by Blue Plan. This resulted in a changed name for the methodology - SPSA (Systemic and Prospective Sustainability Analysis) – in order to distinguish it from SSA. At this time the wider stakeholder views were again assessed. This was a worrying time for the teams and yet, paradoxically, this can be a time of insight and reward. Teams were also asked to think about how they might engage the public more actively in the use of indicators. At this point the thematic teams began to consider a marketing strategy. This also involved active and purposeful reflection on what has been achieved and what has been problematic. Following this, it can be of great value to consider the meaning of the sustainability indicators and the possible scenarios for the future of Malta.

In 2002 CAMP moved on to the next country site, the central and southern coastal strip of Lebanon in the Municipalities of Damour, Sarafand and Naquora. The SSA was to be developed along with other transverse activities (participatory programme and data and information management) to work with thematic teams engaged in:

- Integrated Coastal Area Management
- Integrated Water Resource Management
- Marine Conservation Areas
- Tourism and Sustainable Development
- Urban Management and Sustainable Development

The SPSA was undertaken in four workshops and the outcomes have been published elsewhere (Mada, 2002a, 200b, 2003a, 2003b). A key difference to the enactment of SPSA in Lebanon compared to its application in Malta, was its rapid application (one year rather than two). SPSA was also made more concise by focusing all twelve stages into four workshops. As with Malta, one of the key outcomes of the SPSA process was the opportunity for members across the thematic teams to meet and share ideas, although the project structure at times produced problem issues. Specifically in this case there was an inability of the project management to align the time lines of the various thematic teams so that key personnel would be available for participation in transverse activities.

4. Dimensions to sustainability: A new synthesis

It must first be said that the authors do not want to make exaggerated claims for SPSA, or its later variants, as undertaken in both Malta and Lebanon. SPSA is not presented as finished, definitive or necessarily successful. However, some modest claims might be made for it. The SPSA did generate sustainability indicator frameworks, although where these fit into recent developments in Malta such as the Maltese Commission on Sustainable Development (MCSD) and the Sustainability Indicators Malta Observatory (SIMO) initiatives is not clear at the time of writing. By way of contrast with SPSA the SIMO initiative takes much more of a top-down approach by building upon the UNEP indicator sets. However, as one would expect there are similarities in SIs selected via SPSA and under SIMO.

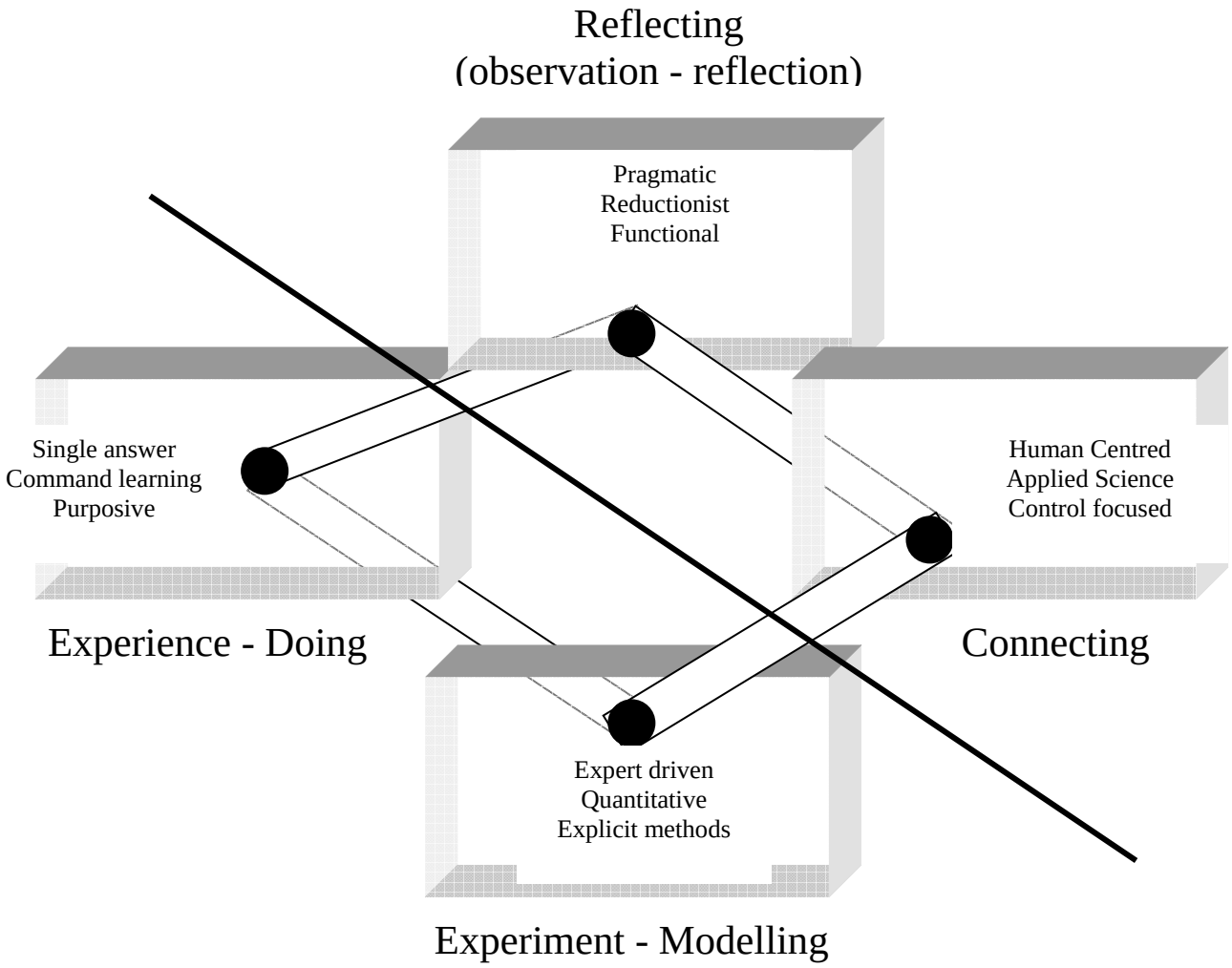
It appears to the authors that the main benefit of SPSA in both Malta and Lebanon has not so much been with the creation of the final SI lists (the desired outcome of the project) but in

allowing the various teams and stakeholders some space to work together and share thinking. It became evident as the project progressed that many of the teams had never had an opportunity to really consider the tasks they had been asked to undertake, at least not in a systemic manner. Teams seemed keen to grasp the opportunity to think about their project from the widest angle. As a learning exercise for individuals it can be fairly claimed that SPSA succeeded. It was this learning experience that appeared to be the most valued element of the whole project process, yet it was not set explicitly as a primary, desired project outcome. This contradiction was very apparent to all involved in the project, and provided much food for thought. The project process did not explicitly allow for learning and any insights that may emerge from this could not be adapted into on-going review, yet sustainable development should encourage such flexibility. Could it not be possible to adapt the Logframe style to include learning?

One way in which the Logframe could be modified is by including a additional learning zone to the framework based upon variants of the Kolb learning cycle (Kolb, 1984) which can be thought of as 'Sustainability Therapy'. Others have drawn a parallel between sustainable development and the Kolb Cycle (Hutchcroft, 1996) and explored sustainable development as an essentially learning process (Meppem and Gill, 1998). It is suggested that the sub-routine learning zone will encourage refection with regard to what the project is trying to achieve in the long and short-term. It will create space for reflection, and allow a rationalisation of the current format of the sustainable development project and suggest possible alternatives to practice. Progression through the cycle can be a formal project activity, and help all stakeholders appreciate the context of project goal and purpose even if there is little room for manoeuvre in terms of changing them. This may appear to be defeatist, but it is rationalised that the very process of Sustainability Therapy will allow stakeholders to learn from each other, appreciate the limits and potential of the project they are in and allow them to carry this learning forward into other activities (and projects) in which they may be involved.

The nature of the surface of reality for sustainability therapy can be undertaken in any project context. The term therapy implies that it would occur in a non-judgemental process, unearthing hidden assumptions and questioning current accepted realities at all levels of the project. The questioning of assumptions is represented by a total of 12 mindsets existing at four different aspects (refection, connection, modelling and doing) of the learning cycle (with three dimensions at each of these). The idea is represented in Figure 4. Please note that the four points of the cycle and the three dimensions within each of these are not exclusive, definitive or definite. Rather the aim is to demonstrate that SIs can arise from a range of different epistemological understandings of sustainable development and used as a means to represent 'truth'. The device is being employed here to explore this diversity rather than seeking to set out any particular 'truth'. The suggested three dimensions for each of the four nodes of the cycle will now be explored.

ABSTRACT PHASE



CONCRETE PHASE

Figure 4 Learning cycles

4.1 Reflection

Reflection is when the important aspects of learning are assimilated and either stored for subsequent action or dismissed as irrelevant. It can be considered in terms of the three continua of:

1. *Type of focus*: ideal to pragmatic.

2. *Approach to change*: functional to dysfunctional.
3. *Thinking*: reductionist to systemic.

Traditionally sustainable development tends to be considered as a *pragmatic* process with *functional* approaches to aspects of *reductionist* elements of wider reality. *Pragmatic* is represented by small step change rather than perhaps a more ideal but substantial change. Time and resources available could well be the limiting factor here. The *functional* is seen in the focus on teams of applied 'experts' working to a project script. *Reductionist* refers to the way in which elements of sustainable development are often seen in relative isolation – pointing at specific isolated and of necessity, fragmented issues of concern - rather than consider in depth how they interact and influence each other. Even with SIs in a PSIR framework (Figure 2) there may be little consideration of such linkages (De Kruijf and van Vuuren 1998). Tendencies towards reducing complexity to a single index or category (e.g. the sustainability barometer) may be one extreme, while allowing for a host of individual indicators with a range of interpretation represents the other.

4.2 Connecting

In the second aspect of the Cycle there is a continuum relating to connecting. Connecting means linking personal and team reflection on experience to experiences from related areas and from others working in the same field. In this case there are the three scales of:

1. *Relating to the world*: anthropological to cosmological
2. *Approach to science*: pure to applied
3. *Social interaction*: control to partnership

It can be argued that sustainable development tends to be a function of concern for mankind first (*anthropological*) and the environment second (i.e. weak sustainability). Sustainable development also tends to be an outcome of *applied* (rather than pure) *science* and an endeavour to allow experts, managers, politicians and others to *control* social processes rather than work in partnership. More recently there has been a move towards the use of indicators as learning tools (the 'reactive' indicators of Moffatt, 1994), but for the most part they have been seen in a proactive sense as aids to policy development.

4.3 Modelling

The third, modelling or experimenting aspect of the cycle relates more specifically to SIs. There are three dimensions:

1. *Indicator methodology*: explicit or implicit
2. *Engagement with stakeholders*: inclusive or exclusive
3. *Type of indicator*: qualitative or quantitative

The conventional form of most SIs relates to a minimalist dialogue with stakeholders (*exclusive)*, seeking *quantification* and developing *explicit* indicators (defined and replicable methodology).

4.4 Doing

In considering the 'doing' or 'acting' aspect of the cycle there are the three scales of:

1. *Outcome*: single to diverse
2. *Approach to learning*: command to autonomy
3. *Project approach*: purposive to purposeful

Conventional wisdom indicates that most projects are focused on single outcomes at any one point in space and time as specified by the Project Blueprint. Projects also tend towards instruction and command as outcomes of learning as opposed to emergence and autonomy. Key concerns are usually with achievement, accountability and getting the most impact from the resources allocated. That is, they are directive and purposive rather than self-organising and purposeful.

All sustainable development projects can be mapped through the four boxes of Figure 4, but the location through which the project 'passes' at each point may be different for different projects. In effect, certain combinations of the coordinates at each node can be joined to form a pathway or 'wormhole' through the cycle. It can also be suggested that movement through one set of coordinates at one point in the cycle will tend to predetermine the exact coordinates for movement through other nodes. Certain types of reflection may well prejudice resulting connection and this in effect will have impact on modeling and doing. For example, based upon the general assumptions made above it can be argued that sustainable development is traditionally:

(1) *Reflection*: pragmatic, functional, reductionist
(2) *Connecting*: anthropological, applied, control
(3) *Modeling*: explicit, exclusive, quantitative
(4) *Doing*: single, command, purposive

Being pragmatic/functional/reductionist may predispose connecting to be anthropological/applied/control and modeling to be explicit/exclusive/quantitative. However, it is also possible that the wormhole can change shape by becoming broader at one point in the cycle (wide range of viewpoint) and narrowing at others (narrow set of viewpoint). Indeed the sustainability wormhole could split into smaller wormholes and pass through a number of separate coordinates at one point in the cycle before merging to pass through one location at the next point. All sorts of possibilities exist, and each point presents a set of issues for discussion. Why a particular set of coordinates in that space is selected above all other possibilities could be analysed and reasoned rather than passing through a pre-determined wormhole at speed and without questioning.

In order to help map any particular sustainable development project onto Figure 4 a 12 point questionnaire linked to the 4 X 3 dimensions has been developed (Table 1). Depending on the outcomes of the questions, various project patterns arise which can be clustered into four distinct project types (Table 2)[2]:

- holistic
- technocentric
- organisational
- environmental

This project typology is, of course, a subjective grouping reflecting the authors' perspective and no doubt other combinations and labels can be employed. The types may be thought of as lenses for viewing and understanding the world processes that projects engage with. Others, notably Richard Bawden (1997), have used similar devices, although in Bawden's case referring to them as a conceptual 'window on the world'. The 12 questions, or forms of them, could be asked of the project team members before the project begins and subsequently during its lifespan as an activity, and the definition of types could be informative in terms of indicating the manner in which the project might be originally conceived and process development. Alternatively, the questions (or variants) could be applied during the life of the project with stakeholders included throughout and reflective learning and practice a key outcome of the project and not just an emergent surprise.

The questionnaire in Table 1 along with the typology in Table 2 has been applied to the two CAMP projects in Malta and Lebanon (Table 3). This analysis is, of course, subjective, but the result is indicative of the authors' experience of the projects. It can be seen that both Malta and Lebanon were experienced as providing overarching tendencies to holism and an organisational focus. Technocentric and environmentalist foci are less evident. The implications are that the two projects are organised on wide ranging and diverse perceptions taking into account the multiple perspectives of stakeholders, towards organisational goals for developing the sustainability debate and its futurity in country and maybe less to do with what one might refer

[2] See Tables at the end of this paper

to as conventional and narrow environmental concerns. But these are the views of the authors. As a next step it would be interesting to conduct wider Sustainability Therapy sessions with a range of project stakeholders, including those meant to ultimately benefit, to gain further inference of the overall tendencies of the projects. More widely it would be interesting to conduct a questionnaire analysis of the perceptions of stakeholders in a wide range of such projects. Such questionnaires might provide compelling information on the effectiveness of the sustainable development project globally – especially if related to a review of the published outcomes of these projects.

One means to facilitate the development of on-going project learning via Sustainability Therapy might be to make use of an adapted format for the Logical Framework (see Table 4). A therapy format in this case would focus on non-judgmental and questioning approaches to understanding the expected and intended outputs of the project. Making use of the Logical Framework structure, a facilitator could work with the project team as a whole or in self-divided groups representing strategic, tactical and operational levels. The project process and output could be gently contested at all these levels - working along the guideline questions set out in Table 1. By questioning the project team assumptions the project explicit process and outcomes could be compared to the team-known and implicit processes and outcomes. We argue that such a therapy session would not only unlock a great deal of the sustainable development project learning but also act as a sustainable basis for ongoing and comparable evaluation of many sustainable development processes.

5. Discussion

All of the foregoing presents a picture of multiple-dimensionality in sustainable development, but how does this analytical framework help make sustainable development projects more 'circular'? The most noticeable outcome of the work in Malta and Lebanon was the joy that the participants showed in learning about sustainable development through SIs. Others have had a similar experience (Kline, 2000). However, for donors it may the end of the project process that matters and not any learning gained by stakeholders during the project itself. Even if learning is considered it may be recorded as nothing more than the number of workshops or training courses that were held and the number of participants who attended. It also has to be remembered that all projects have deeply embedded polarities of power such as :

- those with the funding, those without
- those charged with managing, those being managed
- different groups of beneficiary (men/women, rich/poor, old/young)

It is not hard to find these polarities, and SIs provide a lever by which important and contested issues can be discussed; they provide a valuable common currency of debate and exploration (Meter, 1999). Yet projects can smooth this landscape of power, or at least ignore significant dichotomies of thought, in order to get the job done. Without a formal structure that facilitates the debates and a therapy which endeavours to take sustainable development processes forward they may not happen. All (including the expert) take part as equals and not as passive recipients of the privileged knowledge of others. Neither would the community (or stakeholders) use the indicators in the sense that the project would mean the word, or indeed how an intended consumer (policy maker, manager) would use the SIs as a project output. The main point is that the learning framework helps keep "*contesting actors together*" and "*provides them with a platform for fruitful debate*" (Kasemir et al., 1999).

This may seem unpalatable for some funders as such discussions (let alone notions of Sustainability Therapy) may not appear to be productive in terms of generating tangible outcomes, and could perhaps even be seen as inimical in deflecting attention from the end point and maybe even call into question the project process. Does the expanded Logframe imply that 'things won't get done'? No, far from it, the learning is the doing. Hence the framework does not negate or diminish the desire of funders for the 'end product', and more discussion on the road to getting there could be highly advantageous. This is not to say that funders abandon a focus on eventual outcomes. It is important that project outcomes feed into sustainable development policy and this should include an assessment of performance on the part of implementing

agencies (Brugmann, 1997b; Guy and Kibert, 1998). Learning in itself does not necessarily lead to change (Brugmann, 1997a), but it was noticeable in both the Malta and Lebanon projects that no frustration set in amongst participants, even though the eventual usage of the SIs generated as an output is, at the time of writing, uncertain.

What is suggested here is open to a host of potential criticisms that usually surround participative approaches in sustainable development. Unequal power relations still exist (Kasemir et al., 1999), and ultimately much depends upon the prevailing mindset of the funding agency and the skill of the facilitator and the specific tools he/she applies. Even so, the authors suggest that this analytical model will help in the infusion of richness back into sustainable development projects. By including an awareness of the journey through the project as part of the project planning rather than only thinking of arriving at the end participants can explore where they are within the dimensions and why they think they arrived there.

There is no doubt that despite their limitations projects will continue to dominate the practice, and indeed research, of sustainable development. While sustainability idealists may bemoan this reality with its apparent obsession with tangible outputs for a spend in resource, it is difficult to imagine any change. Some may see the suggestion made in this paper for working within projects as a distasteful compromise in the mode of accepting elements of weak instead of strong sustainability. However, the authors see no contradiction here as projects can exist with both weak and strong perspectives. Indeed if anything it can be argued that projects founded on strong sustainability should perhaps be more in need of a learning device to help counter the potential constraints of project linearity.

6. Conclusions

In the view of the authors the apparent contradiction between the ‘linearity’ of most Sustainable Development projects, with time-bound and defined outputs achieved at a fixed cost, and an implied ‘circularity’ of the theory whereby there is no ‘end’ presents problems with the ‘doing’ of sustainability. It is suggested that one way around this is to frame the project within a form of the Kolb Learning Cycle heuristic, and to build this in as part of the project planning process. However, in order to succeed it is necessary to work within the tools (such as the Logframe) so beloved by those providing the project resources rather than try to supplant them. The authors suggest that a modification of the Kolb cycle could encourage learning and understanding by all involved. It could also provide Sustainability Therapy to those trapped in processes which they find orthogonal to their own perceptions. It is suggested that such learning, therapy and reflective practice should be a valid output of the sustainable development project. Ironically funders would be well advised to take a broader perspective in order to achieve true ‘value for money’ within such projects, even if learning is not an easily measurable or tangible outcome.

7. Acknowledgements

We are grateful to the Blue Plan for the Mediterranean for supporting and encouraging us in this work, for providing a sympathetic and proactive working context in which assumptions are questioned and multiple perspectives valued and for providing keen insight in commenting on the emergent outcomes of our co-work.

References

Bawden, R., 1997. Learning to Persist: a systemic view of development, in: A. Stowell, R. Ison and R. Armson, Systems for Sustainability: People, organizations and environments, Plenum, London, pp. 1-5.

Bell, S., 1998. Managing and learning with Logical Frameworks: The case of an MIS Project in China. Human Systems Management 17(1), 15-28

Bell, S., 2000. Logical Frameworks, Aristotle and Soft Systems: A Note on the origins, values and uses of Logical Frameworks. Public Administration and Development 20(1),29-31

Bell, S. and Morse, S., 1999. Sustainability Indicators: Measuring the Immeasurable, Earthscan, London.

Bell, S. and Morse, S., 2001. Breaking through the glass ceiling: who really cares about sustainability indicators?. Local Environment 6, 291-309.

Bell, S. and Morse, S., 2003. Measuring Sustainability: Learning by Doing, Earthscan, London.

Bell, S. and Morse, S., 2005. Holism and understanding sustainability. Temenos Quarterly Review Accepted for Spring 2005.

Brown, D. R., 1998. Evaluating institutional sustainability in development programmes: Beyond dollars and cents. Journal of International Development 10(1), 55-69.
Brugmann, J., 1997a. Is there a Method in our Measurement? The use of indicators in local sustainable development planning. Local Environment 2(1), 59-72
Brugmann, J., 1997b. Sustainability Indicators Revisited: Getting from Political Objectives to Performance Outcomes - A Response to Graham Pinfield. Local Environment, 2(3), 299-302
Busenberg, G. J., 2001. Learning in organisations and public policy. Journal of Public Policy 21, 173-189.
Carlsson, J. and Wohlgemuth, L., 2000. Learning in development co-operation – an introduction. Paper presented at the EGDI Seminar 'What do aid agencies and their co-operating partners learn from their experiences', 24th August 2000.
Checkland, P. B., 1981. Systems Thinking, Systems Practice. Wiley, Chichester
Checkland, P., 2001. The emergent properties of SSM in use: A symposium by reflective practitioners. Systemic Practice and Action Research 13(6), 799-823
Checkland, P. B. and Scholes, J., 1990. Soft Systems Methodology in Action. Wiley, Chichester
Checkland, P. and Jayastna, N., 2000. The Soft Systems Research Discussion Group: Taking Stock, Background, Current Position, Future Direction. University of Salford, Salford
Coleman, G. 1987. Logical Framework Approach to the monitoring and evaluation of agricultural and rural development projects. Project Appraisal 2(4), 251-259
Cordingley, D. 1995, Integrating the Logical Framework into the management of technical co-operation projects. Project Appraisal 10(2), 103-112
Cowen, M.P. and Shenton, R.W., 1996. Doctrines of Development, Routledge, London
Crawford, G., 2003. Promoting democracy from without - Learning from within. Democratization 10(1), 77-98.
Cusworth, J. and Franks, T., 1993. Managing Projects in Developing Countries. Longman Scientific and Technical, Harlow
de Kruijf, H. A. M. and van Vuuren, D. P., 1998. Following sustainable development in relation to the North-south dialogue: Ecosystem health and sustainability indicators. Ecotoxicology and Environmental Safety 40, 4-14
Dale, R., 2003. The Logical Framework: an easy escape, a straightjacket, or a useful planning tool?. Development in Practice 13(1), 57-70.
den Heyer, M., 2002. Modelling learning programmes. Development in Practice 12(3 and 4), 525-529.
Dhakal, S. and Imura, H., 2003. Policy-based indicator systems: emerging debates and lessons. Local Environment 8, 113-119
Gasper, D., 1997. Logical Frameworks - A critical look. Paper presented at a Development Studies Association conference held at the University of East Anglia
Gasper, D., 1999. Evaluating the Logical Framework approach: Towards learning -orientated development evaluation. Public Administration and Development 20(1), 17-28
Godet, M., 2000. How to be rigorous with scenario planning. Foresight 2(1), 5-9
Godet, M., 2001. Creating Futures: Scenario Planning as a Strategic Management Tool. Economica. London.
Godet, M., R. Monti, Meunier, F., and Roubelat, F., 1999. Scenarios and Strategies: a toolbox for Scenario planning, Laboratory for Investigation in Prospective and Strategy: Toolbox. http://www.cnam.fr/deg/lips/toolbox/toolbox2.html
Gundmundsson, H., 2003. Making concepts matter: sustainable mobility and indicator systems in transport policy. International Social Science Journal 55, 199-217.
Guy, G B and Kibert, C. J., 1998. Developing indicators of sustainability: US experience. Building Research and Information 26(1), 39-45
Horton, D. and Mackay, R., 2003. Using evaluation to enhance institutional learning and change: recent experiences with agricultural research and development. Agricultural Systems **78**, 127-142.
Hutchcroft, I., 1996. Local Authorities, universities and communities: Alliances for sustainability. Local Environment 1 (2), 219-224.
Jesinghaus, J 1999. Indicators for Decision-Making, draft paper of 12/12/1999. European Commission, Brussels
Kasemir, B., van Asselt, M. B. A. and Dürrenberger, G., 1999. Integrated Assessment of sustainable development: Multiple perspectives in interaction. International Journal of Environment and Pollution, 11 (4), pp407-425.
King, C., Gunton, J., Fairbairn, D., Coutts, J. and Webb, I., 2000. The sustainability indicator industry: where to from here? A focus group study to explore the potential of farmer participation in the development of indicators. Australian Journal of Experimental Agriculture 40, 631-642.
Kline, E., 2000. Planning and creating eco-cities: Indicators as a tool for shaping developing and measuring progress. Local Environment 5(3), 343-350
Kolb, D., 1984. Experiential Learning: Experience as the Source of Learning and Development. London, Prentice-Hall.

Kumar, S. and Corbridge, S., 2002. Programmed to fail? Development projects and the politics of participation. Journal of Development Studies 39(2), 73-103.
Mada, 2002a. The Systemic and Prospective Sustainability Analysis. Workshop 1. Beirut, Blue Plan. http://www.planbleu.org/indexa.htm
Mada, 2002b. The Systemic and Prospective Sustainability Analysis. Workshop 2. Beirut, Blue Plan. http://www.planbleu.org/indexa.htm
Mada, 2003a. The Systemic and Prospective Sustainability Analysis. Workshop 3. Beirut, Blue Plan. http://www.planbleu.org/indexa.htm
Mada, 2003b. The Systemic and Prospective Sustainability Analysis. Workshop 4. Beirut, Blue Plan. http://www.planbleu.org/indexa.htm
May, P. J., 1992. Policy learning and policy failure. Journal of Public Policy 12, 331-354.
May, P. J., 1999. Fostering policy learning: a challenge for public administration. International Review of Public administration 4, 21-31
Meppem, T and Gill, R., 1998. Planning for sustainability as a learning concept, Ecological Economics 26, 121-137
Morgan, P., 2002. Technical assistance: correcting the precedents. Development Policy Journal 2, 1-21.
Meter, K., 1999. Neighbourhood Sustainability Indicators Guidebook, Crossroads Resource Center, Minneapolis.
Moffatt, I., 1994. On measuring sustainable development indicators. International Journal of Sustainable Development and World Ecology 1, 97-109.
PAP, U. M., 2000. MAP CAMP Malta Project Inception Report. Split, Priority Action Programme. http://www.pap-thecoastcentre.org/
Probert, S. 1997. The metaphysical assumptions of the (Main) Soft Systems Methodology advocates, in Winder, R L, Probert, S K and Beeson, I A (eds) *Philosophical Aspects of Information Systems,* Taylor and Francis, London, pp131-151
Probert, S., 1998. A critical analysis of Soft Systems Methodology and its (theoretical and practical) relationship with phenomenaology. Systemist 21, 187-207.
Senge, P. M., 1990. The Fifth Discipline: The Art and Practice of the Learning Organization. Doubleday, New York.
World Commission for Environment and Development (WCED), 1987. Our Common Future, Oxford University Press, Oxford.

Table 1. Types of question that could be asked to identify a tendency towards the extremes within the four nodes of the Kolb Learning Cycle in Figure 2.

No.	Node	Dimension	Type of question that can be asked	If yes then:
1	Reflection	*Type of focus*	When I reflect on my experience I am interested in lessons that provide me with wide ranging and general guidance	ideal
2		*Approach to change*	I am only interested in change which arises from an obvious need	functional
3		*Thinking*	My vision of sustainable development needs to reflect the whole and not just parts of the context	systemic
4	Connecting	*Relating to the world*	My focus is determined by the needs of mankind first	anthropological
5		*Approach to science*	I'm more interested in 'doing' sustainable development than questioning its meaning or understanding the context	applied science
6		*Social interaction*	We need to bring people together to consider how we will 'do' sustainable development and develop indicators	partnership
7	Modelling	*Indicator methodology*	Indicators can often arise from people's experiences rather than scientific observations	implicit
8		*Engagement with stakeholders*	I like to have a wide and diverse team to work with for all aspects of project work	internal
9		*Type of indicator*	indicators are often unquantifiable but I consider them of equal value to those that are quantifiable	qualitative
10	Doing	*Outcome*	Projects are at their best when they focus narrowly on limited outcomes	single
11		*Approach to learning*	Sustainable development projects should be based on command as opposed to autonomy	command
12		*Project approach*	A project works best when its goals are set by the project team themselves	purposeful

Table 2. Tendencies and types in sustainable development indicator projects.

Type of question that can be asked	Type of sustainable development project			
	Holistic	Technocentric	Organisational	Environmental
When I reflect on my experience I am interested in lessons that provide me with wide ranging and general guidance	Y	N	N	Y
I am only interested in change which arises from an obvious need	N	Y	Y	Y
My vision of sustainable development needs to reflect the whole and not just parts of the context	Y	N	Y	Y
My focus is determined by the needs of mankind first	N	Y	N	N
I'm more interested in 'doing' sustainable development than questioning its meaning or understanding the context	Y	N	N	N
We need to bring people together to consider how we will 'do' sustainable development and develop indicators	Y	N	Y	N
Indicators can often arise from people's experiences rather than scientific observations	Y	N	N	N
I like to have a wide and diverse team to work with for all aspects of project work	Y	N	Y	N
indicators are often unquantifiable but I consider them of equal value to those that are quantifiable	Y	N	Y	N
Projects are at their best when they focus narrowly on limited outcomes	N	Y	Y	N
Sustainable development projects should be based on command as opposed to autonomy	N	Y	N	Y
A project works best when its goals are set by the project team themselves	Y	N	Y	N

Table 3. Observed tendencies and types in sustainable development indicator projects in Malta and Lebanon.

Type of question that can be asked	Type of sustainable development project			
	Holistic	Technocentric	Organisational	Environmental
When I reflect on my experience I am interested in lessons that provide me with wide ranging and general guidance	**Y**	N	N	**Y**
I am only interested in change which arises from an obvious need	**N**	Y	Y	Y
My vision of sustainable development needs to reflect the whole and not just parts of the context	**Y**	N	**Y**	**Y**
My focus is determined by the needs of mankind first	N	**Y**	N	N
I'm more interested in 'doing' sustainable development than questioning its meaning or understanding the context	Y	**N**	**N**	**N**
We need to bring people together to consider how we will 'do' sustainable development and develop indicators	**Y**	N	**Y**	N
Indicators can often arise from people's experiences rather than scientific observations	**Y**	N	N	N
I like to have a wide and diverse team to work with for all aspects of project work	**Y**	N	**Y**	N
indicators are often unquantifiable but I consider them of equal value to those that are quantifiable	**Y**	N	**Y**	N
Projects are at their best when they focus narrowly on limited outcomes	**N**	Y	Y	**N**
Sustainable development projects should be based on command as opposed to autonomy	**N**	Y	**N**	Y
A project works best when its goals are set by the project team themselves	**Y**	N	**Y**	N
Total highlighted in each category	**10**	**2**	**7**	**4**

Table 4. A Learning Logical Framework

Project Story Goal The strategic goal beyond the project but informing its development	**Project accountability Indicators and the means to verify them** *Strategic Indicators (StIs)*	**Project counter-story Assumption/ risk** The counter-story of the project expressed in the form of assumptions or risks	**The Learning Outcomes from the Project** Learning at a strategic level relating to: • Reflections on the project • Connections to other projects
Purpose The sustainable purpose of the project - its root definition - contains in brief the key project Customer, Actors, Transformation, Assumption, Owner and Constraint	*Sustainability Indicators (SIs)*		Learning at a tactical level relating to: • Reflections on the project • Connections to other projects • Modelling used in the project • Activity of the project
Outputs The impact of the project in terms of a sequence of related outputs derived from the experience of the activities	*Impact Indicators (IIs)*		Learning at a tactical level relating to: • Modelling used in the project • Activity of the project
Activities The sequence of activities which are needed to achieve the project transformation set out in the Purpose	*Performance Indicators (PIs)*		Learning at an operational level relating to: • Activity of the project

Note that the 'Learning outcomes' relate to answering the questions set out in Tables 1 and 2:

- at the strategic/ goal level these relate to reflection and connection
- a the purpose level, the project team refers to questions relating to all aspects of the learning cycle.
- at the output level the questions are more focused on modeling and activity issues.
- at the activity level the questions relate solely to activity.