Sustainability indicators and Agenda 21: experience from the Island of Guernsey

El presente artículo estudia la experiencia del desarrollo de los indicadores de sostenibilidad en la isla de Guernsey durante los cuatro últimos años. Con ello pretende mostrar que la propuesta de la Agenda 21 Local de estimular las actuaciones sobre el terreno está siendo puesta en práctica, pero con un enfoque que no es ni de arriba a abajo o tradicional, ni de abajo a arriba o postmoderno, como la Agenda 21 sugiere. Mientras que la investigación empírica sobre las mejores prácticas sugiere a menudo que debiera comprometerse la participación de la comunidad antes de proceder al diseño de los indicadores de sostenibilidad, en este artículo expondremos las razones de por qué no siempre es posible esta vía. El caso de Guernsey muestra que generar interés en el proceso de desarrollo de los indicadores sólo fue posible una vez que el proceso estuviera en marcha y en pleno funcionamiento. Sin embargo también muestra que, una vez asegurado el interés de las principales partes implicadas, fue posible avanzar en el desarrollo de indicadores en un proceso que paulatinamente atrajo a más gente.

Artikulu honek Guernsey uhartean iraunkortasun-adierazleak garatu nahian azken lau urteotan zer egin duten aztertzen du. Honakoa erakutsi nahi du: Tokiko Agenda 21 delakoak gizartearen erroetatik abiaturik lan egiteko deia egiten du, eta hala ari da gertatzen, baina ez modernisten goitik beherako ereduaren bideti, eta ezta postmodernoen behetik gorako ereduaren bidetik ere (Tokiko Agenda 21 delakoak eredu postmodernoaren alde egiten du). Literaturarik onenean askotan irakur daitekeenez, iraunkortasun-adierazleak diseinatu aurretik lortu behar da jendearen atxikimendua, hori ez da beti posible, eta horren arrazoia aztertu nahi dugu lan honen bidez. Guernseyko kasua erabiltzen da ikusteko ezinbestekoa izan zela lehen-lehenik adierazleak diseinatzea eta martxan jartzea, eta gero etorri zela jendearen interesa. Hala ere, horrek erakusten du, baita ere, nola alderdi nagusien interesa bermatu ondoren, adierazleak garatzen aurrera egin daitekeela eta pixkanaka geroz eta jende gehiago erakartzen dela.

This paper uses the case of developing sustainability indicators on the Island of Guernsey over the last four years to show that Agenda 21's call to activate grass roots action is being realised, but in ways that are neither top-down and modernist in approach, or bottom-up and post-modern as Agenda 21 advocates. Whilst best practice literature often suggests that community involvement must be engaged prior to designing sustainability indicators this paper explores the reasons why this is not always possible. Guernsey's case is used to show how it only became possible to generate interest in the indicator process once they were actually up and running. However it also shows that once interest was secured by a few relevant stakeholders it became possible to further evolve the indicators in a process that has slowly been attracting more and more of the Island's community.

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1. INTRODUCTION

Agenda 21 links sustainability and good governance, suggesting that rather than being the exclusive domain of governments and experts, sustainable development is a process involving ordinary people in their everyday lives, establishing the need to include those people who have been traditionally disenfranchised and excluded from mainstream decision making processes (Allen, A., (2002)). Furthermore sustainability indicators are enshrined within Agenda 21 as tools to help realise this call for greater grassroots participation both physically through the actual process of developing sustainability indicators, and practically through their use to 'bridge data gaps' and 'improve the availability of information' (United Nations Division for Sustainable Development, 1992).

How much has the consensus reached in 1992, and reinforced by subsequent international conferences, protocols and conventions, resulted in a more socially just, environmentally sound, economically vibrant and politically accountable world? When measured in terms of tangible outcomes, the answer seems far from satisfactory, leading many to argue that the agendas for a sustainable future have failed to fully mobilise people, governments and the business community in addressing the urgent problems affecting societies today and in the future (Allen, A., *et al.*, 2002). Based upon the development of sustainability indicators in Guernsey, this paper argues that grassroots participation is being realised and that sustainability is forging a recognisable place within many local communities, just in ways that do not

follow the process orientated approaches outlined by many of today's 'best practice' guidelines.

2. IS IT APPROPRIATE TO MEASURE SUSTAINABILITY?

Traditionally indicators have been used as tools that objectively measure progress towards set goals or targets, with sustainability indicators however this approach is somewhat awkward as the goals and targets can be as subjective as they are objective. After all what is it exactly that we are trying to measure with sustainability indicators? Morel contends that there is real risk of wanting sustainable development indicators to give content to a concept that has no clearly defined content (Morel Journal, C., 2003). In other words the creation of a set of locally or even globally acknowledged sustainability indicators does little more than establish a dominant view of sustainability for that region. O'Riordan and Voisey further this concern, suggesting that sustainability indicator development has revealed more about the social and political ideologies that shaped them than any presumed progress towards sustainable development (O'Riordan, T., and Viosey, H., 1998).

2.1. Social construction as a way of understanding the role of sustainability indicators.

Many authors have used social construction to argue that it is possible to adequately reflect the subjectivity of sustainable development through sustainability indicators (Morel Journel, C., *et al.*, (2003); Astleithner, F., and Hamedinger, A., (2003); Pastille Consortium, (2002)). Rather than placing emphasis upon the actual indicators themselves, social construction is used to place emphasis upon the actual process of developing the sustainability indicators. Such an approach is outlined by the Pastille Consortium who suggest that it is the process of developing and using sustainability indicators and the way that this process subtly changes the relationships between actors that is the important catalyst for sustainable development (Pastille Consortium, 2002). The consortium concludes that the creation of successful sustainability indicators relies far more on how they are integrated into the processes of urban governance and far less in devising, designing, and tweaking particular indicator sets (Pastille Consortium, 2002).

Social construction can therefore be used to move sociological research into a broader analytical understanding of, in this case, sustainable development and the use of sustainability indicators. While social construction itself is based upon a 'relativist' perspective, it is possible to see two very different outlooks from which the use of sustainability indicators is concerned. Extreme relativism, or 'dark construction', seems inextricably linked to the claim that nothing exists except as it exists in discourse, i.e. the only reality that things have is the reality they are given in the symbolic realm of language. In relation to this paper, this offers a confusing idiom, for it seems imperative that our collective actions are seen as real or else we are confronted with the conjecture of needing a separate set of indicators for each and

every individual. As Hannigan points out the object of using social construction is not to discredit but rather to understand how in this case indicators are 'created, legitimated and contested' (Hannigan, J. A., 1995).

By using social construction many authors have built upon the function of sustainability indicators devising a number of different roles carried out by them (Bennet, J., (2003); Pastille Consortium, (2002)). These roles create a vision of purpose for sustainability indicators far beyond the traditional view of objective measurement. Joan Bennett for example in a paper prepared for a meeting of the English Regions Network sets out four closely intertwined roles; 1) monitoring; 2) evaluating and informing policy; 3) raising awareness of the community; 4) raising awareness of decision makers. Bennett suggests that the roles are often intertwined in that monitoring can often inform policy, raising awareness of the public may influence progress towards sustainability, and raising the awareness of decision-makers may in event help to inform policy (Bennet, J., 2003). The value then of distinguishing between the roles is that it helps provide a clearer appreciation of how sustainability indicators are constructed and how they contribute to processes of sustainable development.

2.1.1. **Social Construction and the importance of Community Participation when Establishing Sustainability Indicators**

The debate surrounding social construction and the post-modern versus the modernist appreciation of knowledge is something that can be seen underlying much of current development thinking. Accepting that sustainable development is subjective has lead to public participation becoming a central component to almost all development planning work, with participation presently guiding a majority of research priorities and forming the basis of a huge amount of literature (Bell, S., and Morse, S., 2003). Bell and Morse argue that the explicit inclusion of those who have a stake in the project scenario is now a development-project planning orthodoxy. Suggesting that participation has become something of a holy grail in the development literature and is often portrayed as the solution to all ills (Bell, S., and Morse, S., 2002). This aside it has become widely recognised and quite rightly so, that people have different needs and aspirations, and unless these are planned for from the start the project will be difficult if not impossible to maintain.

Consequently the process of engaging relevant stakeholders from civil society, business and government in the development of sustainability indicators has led to a wealth of best practice examples. A recurring factor in almost all of these is the step-by-step procedure upon which they are based, where indicators are selected only once the relevant stakeholders have been engaged. One such example is the 'Sustainable Seattle' project, which over the last ten years has been promoted as a hallmark citizen led initiative (Atkisson, A., 1999). Sustainable Seattle created an all-volunteer 'Task Team' of diverse professionals who designed a system of sustainability indicators based upon civic

perceptions of sustainability. A more recent example is provided by Bell and Morse who facilitated the development of sustainability indicators on the island of Malta, providing the example of a tool they call 'systemic sustainability analysis' which they used to engage Maltese citizens with in the creation of the Mediterranean Blue Plan (Bell, S., and Morse, S., 2002).

2.2. **The reality of participation in developing sustainability indicators**

Whilst acknowledging the importance of engagement within the development of sustainability indicators, many authors and practitioners have begun questioning the extent to which meaningful participation can be realised. Time constraints, financial constraints and the ability to generate public interest in the process are often cited as reasons affecting public participation. Jeb Brugman openly criticised projects such as 'Sustainable Seattle', suggesting that they chose simplicity and participation over complexity and depth of understanding. Brugman argued that in the case of Seattle's indicators they highlighted key local values and amenities rather than tracking the complex course of the city into the future (Brugman, J., 1999).

Fraser et al., distinguish between top-down and bottom-up methods of developing sustainability indicators, suggesting that the modernist approach which they argue is manifest within government departments around the world is based within a culture of top-down decision making led by so called 'trained experts'. This top-down approach is blamed for misdirecting resources, and alienating local communities through a lack of sensitivity to local issues (Fraser, E., *et al.*, 2004). On the other side the post-modern or bottom-up school approaches planning via participatory methods to policy development, designed to enable local people with the chance to guide the decisions that affect their everyday lives. Realistically there seems a need for a middle ground, where the practical 'top-down' support of the 'expert' led approach is complemented by the post modern vision of bottom-up community engagement.

The following case study is based upon the experience of establishing sustainability indicators in Guernsey over the last four years. The case looks at the role of sustainability indicators and the practicalities involved in meaningfully engaging with local communities. Whilst best practice suggests that stakeholders are engaged prior to indicator development Guernsey's case is used to show that this is not always possible. However through forging ahead with indicator development in a traditionally top-down method Guernsey was able to start a ball rolling that has incrementally attracted the interest of key local stakeholders. This interest has subsequently allowed the indicators to evolve into an accurate and detailed assessment of the Island's sustainability, reflecting an ever widening degree of stakeholder engagement.

3. **CASE STUDY: ESTABLISHING SUSTAINABILITY INDICATORS ON THE ISLAND OF GUERNSEY**

The Island of Guernsey is a British Crown Dependency, located 30 miles

north west of France in the Bay of St. Malo. It has a land surface area of 63km_ and a population of approximately 60,000. In the last fifty years, Guernsey has undergone a series of socio-economic transitions beginning after the Second World War when its traditional fishing industry began declining and the Island established a successful horticulture and floriculture industry. These industries lost their competitive advantage after the UK joined the European Union in 1972 when cheap imports from countries such as the Netherlands first entered the UK market on a large scale. More recently, Guernsey has emerged as an international finance centre and in a matter of years, its financial services have superseded traditional industries with off-shore insurance and banking now accounting for 45% of the Island's total annual income (States of Guernsey, 2005a).

In 2001 the Island's Government (The States of Guernsey) decided to establish a variety of sustainability indicators to track quality of life, and to form part of a monitoring and evaluation cycle. This cycle uses the indicators to help guide a Policy and Resource Plan that sets out the Island's annual strategic planning policies. Responsibility for establishing Guernsey's sustainability indicators lies with the Policy and Research Unit, part of the Policy Council, which is the head of the States government system. The Policy and Research Unit is mandated by the States to annually publish a Policy and Resource Plan along with a 'Sustainable Guernsey – Monitoring Social, Environmental and Economic Trends' report. The Sustainable Guernsey report was initially linked as an annex to the Policy and Resource Plan, with

cross-referencing between the two documents. The primary objectives outlined in the Policy and Resource Plan are as follows:

—Define a set of common strategic objectives for the States of Guernsey.

—Define a set of common corporate policies for the achievement of those objectives.

—Facilitate the most appropriate allocation and management of the resources available to implement those policies.

Over the last two years the Policy and Resource Plan has outlined a series of broad themes, which have complemented a more recent change in the structure of the Island's government. This change has seen the formation of an executive form of government providing a more streamlined system. Nine new departments have replaced 45 autonomous States Committees under the Policy Council that houses the Island's Chief Minister, the Treasury and Resources Department and a Scrutiny Committee. The key themes reflected by the Policy and Resource Plan highlight both to the States departments and to the wider public the strategic context for decision making, promoting the creation of a corporate framework. The intention of linking together the 'Sustainable Guernsey' report and the 'Policy and Resource Plan' is that policy outcomes can then be directly monitored.

### 3.1. The importance of establishing community ownership of sustainability indicators

Developing the sustainability indicators began in 2002 when representatives of

the States of Guernsey spent a year engaged in public and private consultation both on and off the Island to establish Headline indicators that would reflect quality of life across social, economic and environmental dimensions. The process of engaging public participation was based on Agenda 21's call for widely based consultations with community stakeholders. However public interest and commitment to the sustainability indicators proved difficult to maintain, reflecting a traditional scepticism of many small island communities to policy based issues that are seen to originate from outside their own

Figura 1

Sustainable Guernsey
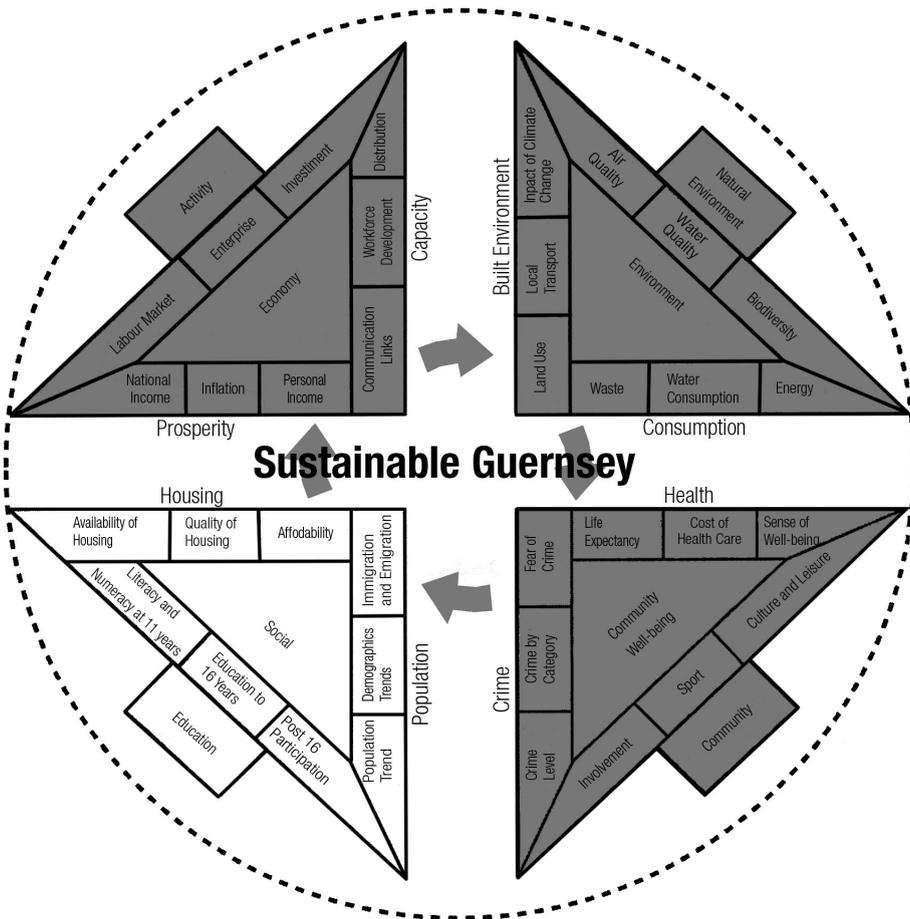
Source: STATES OF GUERNSEY, (2005b)

locality (McAlpine, P., and Birnie, A., 2003). The reluctance of the local community and business to fully engage in the development of the sustainability indicators meant that most of the initial work was driven by the States of Guernsey's Policy and Research Unit, which eventually managed to reduce the 112 proposed headline indicators down to 17 which were themselves broken into a total of 51 sub-categories or "strategic indicators". Data was then collected for these strategic indicators, and reported in the annual publication titled 'Sustainable Guernsey'.

As a term of reference sustainable development carried very little resonance with the Island's community, and so raising community awareness to sustainability was from an early stage seen as a method of building commitment and securing involvement to the sustainability indicators. Whilst Guernsey has never had an LA21 group, it had traditionally supported a strong network of community-based organisations. However, these groups had never been involved with sustainable development as a working concept. Using the indicators as a framework, community support was at first harnessed via areas (or indicators) of relevance to particular individuals, groups and organisations on the Island.

An active dissemination process was developed, based upon the premise that to engage and encourage participation the community, Island businesses and government must be informed. This dissemination included mailing out hard copies of the Sustainable Guernsey report, creating a separate Facts and Figures booklet to accompany the report, and making both available on the internet.

Both the local press and television were also used to promote the report.

3.1.1. **The development and rationale of Guernsey's headline and strategic indicators**

'Sustainable Guernsey', established a two-tier system of indicators using headline indicators to provide a strategic vision to the monitoring process outlining key sustainability themes, with strategic indicators used to conduct the actual quantifiable monitoring. Given the top-down way that the initial headline indicators were chosen, the Policy and Research Unit decided not to set the strategic indicators '*in stone'*, but rather to allow degrees of modification as feed back was provided by Island politicians, policy users and relevant stakeholders ensuring that they adequately met the needs of these groups and realistically reflected the Islands sustainability concerns. For example, during the first year, the strategic indicator "changes in percentage of charitable donations," which was initially part of the headline indicator "Social Participation," was dropped. In its place, the numbers of people voting in local elections and the percentage of residents who are involved in local voluntary groups have been chosen as strategic indicators that better capture social participation. In allowing this flexibility, the Policy and Research Unit hopes that the monitoring process will gain acceptance amongst a widening variety of stakeholders, translating into growing public support for the process. Ultimately it was hoped that the indicators would become platforms through which interested stakeholders would be able to

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contest data and contribute to on-going refinements of the policy planning process (Bell, S., and Morse, S., (1999); Pastille Consortium, (2002); McAlpine, P., and Birnie, A., (2003)).

Although this process is still unfolding, preliminary evidence suggests this approach is working and that a wider group of stakeholders is now more engaged than at the beginning of the process. For example, in 2002, the Policy and Research Unit was only able to collect 34 (66%) out of the total 51 proposed strategic indicators due to a lack of available data. In 2003, they established 47 (86%) of the proposed indicators thanks to extra data provided by a wider group of stakeholders who had become engaged over the previous year. By 2004 the third 'Sustainable Guernsey' report introduced 4 new strategic indicators and contained data supporting all of the 55 indicators, in other words 100% of the data required to monitor the Islands sustainability had been actively collected.

The development of the 'land use' indicator (HI 15 in table 1) illustrates this incremental data collection process. Initially, the 'land use' indicator was broken into two separate 'strategic indicators'. The first was 'building on previously developed land', it was anticipated that this strategic indicator would measure the percentage of building completions on previously developed sites. However, data to accurately measure this was not available, and so wider consultation led to 'Digimap Ltd', a GIS based mapping company on the Island who were able to annually measure the land area used by the built environment using digitalised photographs. The second strategic 'land use' indicator was 'land used for public

amenity'. This strategic indicator was designed to measure the amount of land devoted to parks, recreation and other sorts of public amenity uses. This indicator has remained true to its original concept, but has been augmented by a number of key groups who through the provision of extra data dramatically increased its value to the monitoring process. These new data providers included groups such as; La Société Guernesiaise (a non governmental natural history and conservation society), Guernsey National Trust, Guernsey Water Board and the Vale Commons Parish Council. Finally, over the past two years, a new strategic indicator has been added to the 'land use' indicator that is designed to measure the quality of the land on the Island. This strategic indicator maps nitrate quantities using stream catchment data provided by the Guernsey Water Board.

3.2. **Fostering commitment to the sustainability indicators**

Up until July 2004 the 'Sustainable Guernsey' report remained an annex to the 'Policy and Resource Plan', whilst this was an effective method of introducing the monitoring facility of the sustainability indicators it meant that they were not openly discussed by the Island's politicians. Rather they were being recognised as a constituent to the 'Policy and Resource Plan' and as such were not being provided with the autonomy required to meaningfully evaluate the Island's sustainability.

In a conscious effort to strengthen this evaluation cycle the 'Sustainable Guernsey' report was separated from the 'Policy and Resource Plan' in 2004, just after the streamlining of the Island's

government came into effect. By publishing the two reports at six month intervals it was hoped that a more meaningful evaluation cycle would be established, allowing the sustainability indicators to track the policy amendments set six months previously and consequently feedback into the ensuing years policy plan. A direct effect of separating the 'Sustainable Guernsey' report was that it significantly raised its political profile from that of an annex, which was not directly debated by the Island's politicians, to that of a 'States Report' that was.

3.2.1. *Securing interest through broad based consultation*

As a result of comments raised at the first ever States debate over the 'Sustainable Guernsey' monitoring report in July 2004, a comprehensive consultation phase was preceded upon between November 2004 and January 2005. The overall purpose of the consultation, in line with the States member's comments was to:

— Review the relevance of existing indicators and any potential refinements, and also review the possibility of introducing new indicators.

— Identify any improvements in the methodology, for example collection of data, and the assessment of progress towards sustainability.

— Obtain feedback on the report such as length, structure, layout and style.

Initially all Chief Officers of the ten States Departments were invited to meet with representatives from the Policy and Research Unit to discuss the points outlined above. However as a conse-

quence of the increased political interest into the report the subsequent meetings consisted of a mix of Chief and Senior Officers together with their Ministers and Department Board Members.

In addition to the departmental meetings, the Policy and Research Unit organised and facilitated three Non Governmental Organisation (NGO) workshops. These comprised of NGO representatives covering three central themes – economy, environment and social well-being. Invitation letters to these meetings were sent out to all groups or individuals with an interest in Guernsey's sustainable development. The meetings were organised over an extended lunchtime period, with lunch and refreshments provided. Attendance at all three meetings was much improved on the first consultation meetings with 15-20 organisations represented on all three occasions.

The enthusiastic response of both the wider community and the Island's civil servants to this second stage of consultation must in part be attributed to the increased political accountability that the report received after its separation from the 'Policy and Resource Plan'. This political interest fed directly into the States civil service in a top-down fashion, via Heads of Department and Senior officers. Whilst feeding into the wider community in a bottom-up fashion, via an increase in media attention. The overall effect was to anchor the sustainability indicators onto the agenda of both the Islands government and its wider community.

3.2.2. *Allowing the sustainability indicators to evolve*

The consultation phase outlined a number of issues, which are presently

Table 1

Indicators chosen by States of Guernsey to monitor the Island's sustainable development

Headline Indicators	Strategic Indicators							
	SI 1	SI 2	SI 3	SI 4	SI 5	No. of SIs with data gaps		
						2002	2003	2004
H1 Population	Population trends	Immigration & emigration				0	0	0
H2 Health	Life expectancy	Cost of health care	Death rate by cause	Self Perceived Health status & well-being		0	0	0
H3 Education	Education literacy & innumeracy	Education of young people	School leavers with no qualifications	Post-16 participation rates	Adult education (19yrs+)	1	0	0
H4 Social Participation	No. of people voting in local elections	Community involvement in voluntary groups				2	0	0
H5 Housing	Quality of housing	Use of previously developed land	Subsidised housing	Affordability of housing		1	1	0
H6 Crime	Recorded crime levels	Public fear of crime				0	0	0
H7 Economic Performance	National income	Island Inflation	Economic activity	Average earnings		1	0	0
H8 Energy Consumption	Amount of energy consumed	Per capita electricity consumption	Energy from renewable sources			2	2	0
H9 International Transport	Air transport	Sea transport				0	0	0
H10 Workforce Development	Workforce skills	Organisation commitment				1	0	0
H11 Biodiversity	Natural habitats and key species	Island garden birds				2	2	0

... / ...

Table 1 (continuación)

Indicators chosen by States of Guernsey to monitor the Island's sustainable development

Headline Indicators	Strategic Indicators					No. of SIs with data gaps		
	SI 1	SI 2	SI 3	SI 4	SI 5	2002	2003	2004
H12 Air Quality	Emissions of Greenhouse gases	Sea level rise	General air quality and roadside air quality	Noise pollution		2	2	0
H13 Water Quality	Water pollution incidents	Raw water storage analysis	Water treatment works compliance	Service Reservoir Water Quality	Bathing Water Quality	0	0	0
H14 Water Resources	Raw water storage	Properties connected to the Island's water supply	Potable water supplied	Annual water consumption	Water distribution losses	3	0	0
H15 Land Use	Land use using GIS mapping techniques	Land used for public amenity	Land quality using nitrate mapping of the Island			2	1	0
H16 Household & Commercial Waste	Household waste	Commercial waste	Materials recycled			0	0	0
H17 Local Transport	Traffic volumes	Access to public transport	Mode of travel			0	0	0

Source: States of Guernsey (2005b).

being used to further evolve the 'Sustainable Guernsey' process. All of which reflect an increased awareness over the Island's sustainability monitoring process. The most significant development has been the remodelling of the reports structure, in an attempt to improve access to the report and its content, and to provide equal weighting to the central themes that the indicators represent. The new structure is based upon four sections, Social/ Environment/ Economic and Well-Being. Each of these sections is supported by a set of three Headline Indicators, which in turn are supported by a number of Strategic Indicators (see Table 2).

By adopting this new structure a more accessible, comprehensive and slimmed

down report has been produced. The number of Headline Indicators has been reduced from 17 to 12, and the number of Strategic Indicators in turn has been reduced from 55 to 36. Whilst this is viewed as a positive development, it has resulted in a number of data gaps where new indicators have been introduced, such as the culture and leisure indicators. This fall from 100% coverage down to an estimated 80% is something that will take some time to amend.

By halving the number of pages contained in the report from 210 to 105, the character of the report has been re-established as more of a sign-posting document leading the reader to more comprehensive data sets either via the internet or by providing contact names and addresses. To enable this streamlining much more has been made of the 'Facts and Figures' booklet as a data carrier, directly supporting the 'Sustainable Guernsey' report by providing the actual detailed underpinning data. 'Sustainable Guernsey' is then able to publish the final analysis or key information, whilst the 'Facts and Figures' booklet contains the time series accounts and accompanying tables and graphs. Allowing the 'Sustainable Guernsey' report to cover as wide a remit as previous reports, but in a more streamlined and clearer fashion.

3.2.3. *Taking the indicators into the community*

A recurring call throughout the consultation was the need to pro-actively engage the wider Guernsey community. Many suggestions arose throughout the consultation period resulting in the launch of two education based initiatives. The first, a 'Sustainable Guernsey' cover design

competition and the second a workshop for secondary school teachers on the Island.

The cover design competition was introduced via letters to all Head Teachers on the Island, setting out the basic remit of the report and providing some areas that students may wish to contemplate for their design, such as climate change, sea level rise, transport, waste management, economic develop-ment and economies of scale, and global and local issues of equity and equality. The competition was met with avid interest, with members of the Policy and Research Unit visiting schools to introduce the competition in person. The College of Further Education (16+ year old students) used the competition as a design brief for it's first year graphic art course, running over a whole term.

A judging panel was created which included the Islands Chief Minister and a well known local artist. As a result of the number and quality of entries received two winners were eventually selected, one for the cover of the 'Sustainable Guern-sey' report and one for the cover of the 'Facts and Figures' booklet. Media coverage was provided through a well-orchestrated prize giving, with a local radio disc jockey presenting prizes to the successful young designers and runners-up. The local radio interviewed both the competition contestants, and the judging panel who were all able to express their own view of the issues affecting Guernsey's sustainability.

The education workshop was set up with the Island's education and curriculum advisor, and was based upon the promotion of both citizenship and personal social health education into the schools classrooms. Over a two day

period fifteen of the Island's secondary school teachers, including Head teachers and Heads of Department, gathered for an informal presentation that investigated the origins of sustainable development, the reasons why Guernsey needed sustainability indicators and issues presented in the 'Sustainable Guernsey' report that could be introduced into the classroom. The second day of the workshop saw the teachers devise their own lessons based upon the first day's presentations, ending the session by presenting their lessons to the group. Both of these first time initiatives were successful enough to secure interest in repeating them annually.

3.3. **Key challenges for the future**

Additional suggestions arising from the consultations were made in a number of different areas; whilst some of these have already been adopted some will need further research before they can be implemented.

—Introduction of Targets – Some of those consulted felt that the introduction of targets could aid in helping to focus the document and provide a concrete indication of progress. Without targets it was argued, there was no real indication of how fast indicators were moving in the right (or wrong) direction. In practice whilst it seemed relatively easy to introduce some targets (for instance with the inflation indicator), others were more problematic, and would require further research. For instance, if a population target were required, how would this be determined?

—Gauges – The majority view of those consulted was that the gauges were a useful means of focusing debate on indicator trends, and were a significant enhancement to the document, when introduced the previous year. However, there was some concern that the position of the gauges (whether set to Better, Stable or Worse) was not authenticated, and open to interpretation.
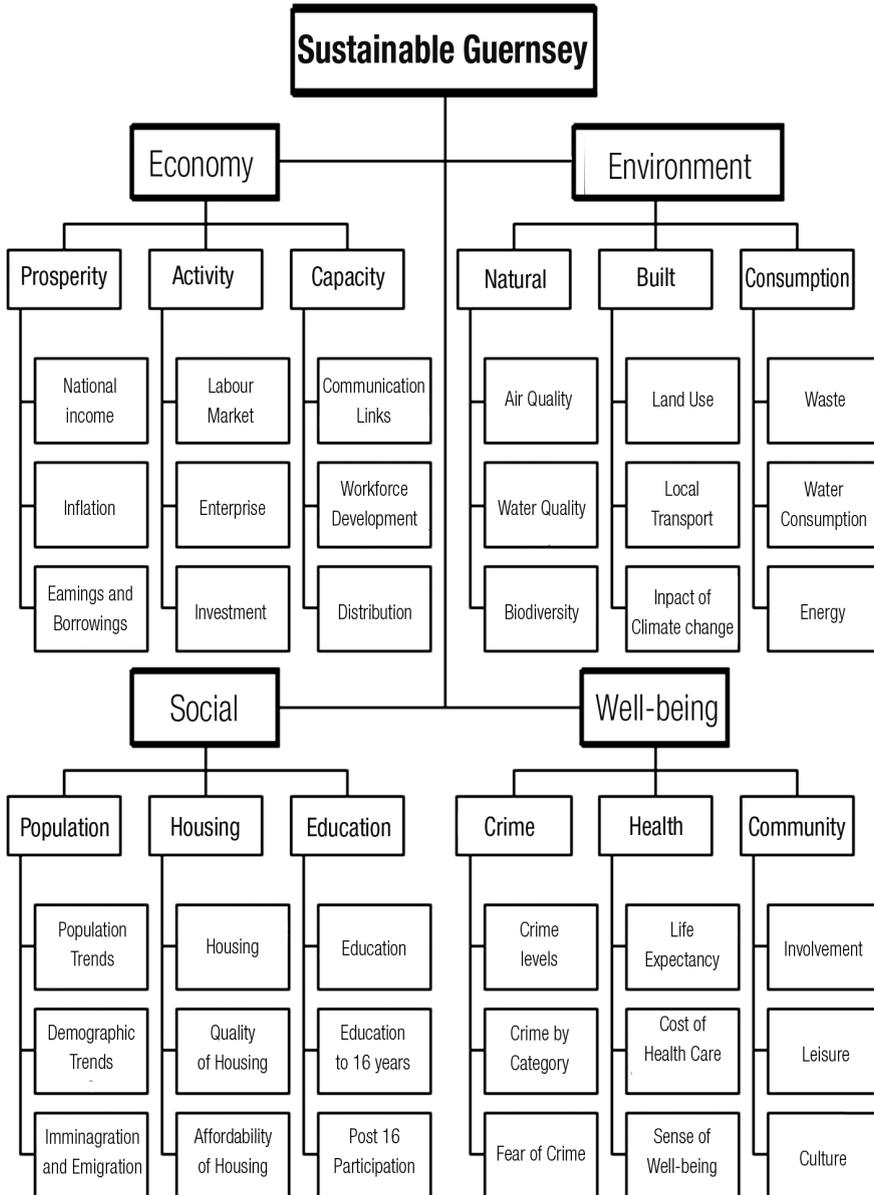
A useful suggestion was that a panel of 'authenticators' could be used to examine and discuss the available data for each indicator and make a recommendation as to where the needle should be placed. The authenticators would be selected on the basis of their experience and knowledge in certain areas (e.g. the economy or social issues).

Practically, the use of authenticators posed a number of logistical problems. One being that it would be necessary to have a number of different panels to discuss different areas of expertise – e.g. one panel to discuss economic issues, and one panel to discuss social issues. Another potential problem was the timing of the Sustainable Guernsey report. The amount of time available for consultation in the preparation phase of the report is extremely limited, and print deadlines would not allow for extensive deliberation upon the gauges.

However, a great deal of effort is already expended in consulting with data providers, who have an opportunity to comment on a draft of indicators relevant to their speciality, before publication. This provides one level of authentication. Members of the Policy Council, who will be given opportunity to debate the document before publication, could also provide another level of authentication.

Table 2

**Indicators and indicator framework developed through consultation
with the Island's NGO's, CBO's, states members and civil servants**

Sustainable Guernsey

Economy

- **Prosperity**
  - National income
  - Inflation
  - Earnings and Borrowings
- **Activity**
  - Labour Market
  - Enterprise
  - Investment
- **Capacity**
  - Communication Links
  - Workforce Development
  - Distribution

Environment

- **Natural**
  - Air Quality
  - Water Quality
  - Biodiversity
- **Built**
  - Land Use
  - Local Transport
  - Inpact of Climate change
- **Consumption**
  - Waste
  - Water Consumption
  - Energy

Social

- **Population**
  - Population Trends
  - Demographic Trends
  - Imminagration and Emigration
- **Housing**
  - Housing
  - Quality of Housing
  - Affordability of Housing
- **Education**
  - Education
  - Education to 16 years
  - Post 16 Participation

Well-being

- **Crime**
  - Crime levels
  - Crime by Category
  - Fear of Crime
- **Health**
  - Life Expectancy
  - Cost of Health Care
  - Sense of Well-being
- **Community**
  - Involvement
  - Leisure
  - Culture

Source: STATES OF GUERNSEY, (2005b)

—Comparability and Benchmarking with Other Jurisdictions – Comments were made that it would be useful for indicators to provide more comparisons with other Jurisdictions. This it was argued would help place trends in context and would enable an assessment to be made of how the Island was faring not only within itself, but also when benchmarked against other similar Island States.

Making meaningful comparisons depends on the availability of comparable data in other similar Island jurisdictions. Where comparisons are available they are being included in the report, as with the inflation and educational achievement indicators.

—Producing a Sustainable Guernsey Press Supplement – Throughout the consultation phase comments were raised upon the length and complexity of the report, in that it did not help to make it accessible to the public as a whole, and that what was needed was a much smaller document that gave an overview or summary of the main points. Various options for this approach have been examined, with the best one being the publication of a small supplement in the Guernsey Press around the time of the publication of the report.

3.3.1. *Establishing links between sustainability indicators and policy-making*

In the three years since Guernsey has begun establishing its indicator based monitoring system, it has fast become a mainstream process. However, developing the role of Guernsey's sustainability

indicators so that they meaningfully evaluate and inform policy is proving a very real challenge. The potential for the role is promising, as support within the Island's civil service and amongst its politicians is gathering strong momentum. However links between the 'Sustainable Guernsey' report and the Island's 'Policy and Resource Plan' which are outlined within the two reports, remain primarily signposts from one document to another. The difficulty lies in finding ways to actively engage policy formation around the sustainability indicators. Such a challenge requires meaningful links to be forged between the 'Sustainable Guernsey' report and the Island's 'Policy and Resource Plan' that do not instigate a reactionary policy making process, but help nurture a corporate 'sustainability' framework, that encourages feed-back both from the 'bottom-up' and the 'top-down'.

The formation of a corporate framework based upon Guernsey's sustainability indicators is seen as being one way in which the links to evaluating and informing policy can be nurtured. The States of Guernsey has actively promoted corporate working over the last ten years, seeking ways to improve inter-government communication and reduce the 'silo' effect that reduces the ability of government departments to deliver to the community. The potential that sustainability indicators have in creating corporate frameworks is being acknowledged as a strategic way of evaluating and informing policy. Whilst not replacing the need to actively link the sustainability indicators themselves to the policy making process, it is a strength that can be used to help develop the role of evaluating and informing policy.

4. **CONCLUSION**

Conceptually sustainability indicators have been widely regarded as important components of any broad based sustainability strategy. Their very nature lends them to stakeholder engagement, as each single indicator requires specialist knowledge, be it social, cultural, environmental or economic. However, if they are to be made relevant that specialist knowledge needs to be tailored according to local characteristics and using local knowledge. The subjectivity of sustainable development underlines this need to engage and involve as many stakeholders as possible, the more views captured within a vision of sustainability the more accurate that vision becomes. Whilst theoretically this concept is relatively straight forward in practice it is very difficult to reconcile.

If local authorities are to adhere to the recommendations of accepted best practice, they are told to select sustainability indicators through the active 'bottom-up' engagement of local stakeholders. This procedural approach is part of a more contentious joust between modernism and post-modernism planning paradigms. Top-down forms of decision-making are accused of mis-directing policy, alienating local communities and exacerbating local problems through 'external' experts not being sensitive to local issues. This however takes a rather perfect world vision of local communities, where all stakeholders are ready and willing to contribute to the development of sustainability indicators. In Guernsey this was not the case, in fact in Guernsey the process needed to be reversed. Interest in the Island's development of sustainability indicators could not be secured from its local community until the indicators were actually up and running.

Guernsey's experience outlines how the overall process of developing sustainability indicators was envisaged to involve local community members, in an open and transparent process designed to monitor and help steer the Island's policy planning process. However, the initial lack of enthusiasm frustrated this process and the States of Guernsey decided to move ahead by tasking experts, including members of its own civil service, to generate the preliminary indicators. From its iteration, this list of indicators has been allowed to evolve incrementally, in the hope of generating community interest in the process, slowly involving an increasing number of stakeholders. In this way, although the process was instigated in a top-down fashion, developing and collecting these indicators has created platforms through which a widening range of people are able to express their concerns. This continuous redevelopment of the sustainability indicators ensures that they remain relevant to the dynamic needs of a diverse range of stakeholders, helping to realise Local Agenda 21's call for greater grassroots participation whilst 'bridging data gaps' and 'improving the availability of information' (United nations division for sustainable development, 1992).

Guernsey's experience reiterates the need to bring together experts and community members in order to develop indicators that measure progress towards sustainability. The process of engaging people to select key indicators provides a valuable opportunity for community empowerment and education. It is not

necessary that this process be initiated from the bottom-up, but it is important that local stakeholder input be allowed to drive the process. In Guernsey's case, the process was instigated in a top-down fashion, but indicator development has proceeded in a bottom-up fashion. This has provided forums through which a wide range of people can express their concerns to the planning process.

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