

Good practices in the selection and use of outcome indicators

Dr Maria Abreu
Department of Land Economy and Pembroke College
University of Cambridge

16 February 2012

Introduction

The purpose of this report is to identify and analyse cases of good practice in the selection and use of outcome indicators, and to understand how this process was undertaken and applied in different policy contexts. The cases were chosen to cover a range of geographical locations, with five cases covering Europe (United Kingdom, Ireland, Denmark, Italy and Spain), four taken from other industrialised countries (United States, Canada and Australia) and one from a developing country (Brazil). They represent a range of policy initiatives and contexts, including environment and sustainable development (Eden Project, Sustainable Juruti), community relations (PEACE I, II, and III, Reducing Murder: A Community Response, U URBAN II – Aarhus), health (Go for Health!), business, innovation and telecommunications (Marche Region ERDF Programme 2007-2013, Guadalinfo) and comprehensive initiatives to address a range of social, economic and environmental goals (Tasmania Together, Whistler2020).

The discussion of the cases is structured along five dimensions. First, I provide an *overview* of the project or programme, its social and economic context, how it was set up and how it is managed. Second, there is a discussion on the *motivation for building a system of outcome indicators*, including the process through which a decision to use them was taken, and how the process was implemented. Third, I present an overview of the process of *selection of indicators*, including how the indicators used were chosen, and who was involved in the decision-making process. I next discuss their *compliance with established requisites*, including whether they are reasonable, normative, robust, responsive to policy, feasible and debatable. Finally, I analyse the *use of indicators in the evaluation and programming process*, such as the timing of the data collection, the degree of openness in their use, and whether their use had any effect on policy design.

Table 1 provides an overview of the cases included in the analysis, including their geographical location, a brief summary of its main aims and objectives, and their sources of funding. The remainder of the report considers each case in turn.

Table 1: Overview of the cases analysed in the report

No.	Name	Country	City or region	Sources of funding	Summary
1	Eden Project	UK	Cornwall	UK Millenium Commision, ERDF,	Pproject to promote environmental

				other public and private	diversity, sustainable development and tourism.
2	PEACE I, II, III	UK, Ireland	Northern Ireland and border regions of Ireland	ERDF	Programme to promote peace and reconciliation.
3	URBAN II - Aarhus	Denmark	Aarhus	EU and national co-financing	Programme to address socio-economic issues in a deprived area.
4	Marche Region ERDF Programme 2007-2013	Italy	Marche	ERDF	Objective 2 programme with a focus on regional competitiveness.
5	Guadalinfo	Spain	Andalusia	ERDF	Programme to increase ICT use and awareness, principally among less well-connected groups.
6	Tasmania Together	Australia	Tasmania	Public and private funding sources	Community initiative to address a range of environmental, social and economic goals.
7	Whistler2020	Canada	Whistler	Public, private, and not-for-profit	Community-led programme to promote sustainable development.
8	Go for Health!	US	Santa Cruz	Public and private funding sources	Programme to address childhood obesity.
9	Reducing Murder: A Community Response	US	Jacksonville	Public, not-for-profit	Programme to reduce the murder rate in Jacksonville.
10	Sustainable Juruti	Brazil	Juruti, Para	ALCOA (private mining company)	Programme to promote sustainable development in a rainforest community.

1. Eden Project, Cornwall, UK

1.1. Overview

The Eden Project, located near the town of St Austell in Cornwall, UK, is one of a number of Landmark Millennium Projects established to mark the year 2000 in the UK. It is managed by the Eden Trust, and is both an educational charity and a social enterprise. The project opened in March 2001 with a mission to:

Promote a universal understanding of the critical importance of our relationship with plants; supporting and showcasing projects, and encouraging individual actions and choices that will lead to sustainable land use.

Although its core aim is to promote scientific and environmental issues, the Eden Project was also conceived as an environmental, social and economic regeneration project. It is located in Cornwall, a relatively large county of the UK that is nevertheless sparsely populated in parts, with an average Gross Domestic Product (GDP) per head of 69% of the EU average. The average earnings per week are 29% below the UK average. The two most salient problems faced by the region are its peripherality and rurality, coupled with the decline of its primary industries (such as mining), and a reliance on tourism, which has a strong seasonal variation. The image of the region before the establishment of the Eden Project was one of an established tourism destination, but one which offered dated facilities and attractions.

The project was built on the grounds of a reclaimed former clay mine, and houses several buildings including two large biomes (large, multi-domed greenhouses) with plants from around the world, open-air gardens, a stage for concerts and other events, and a visitor education centre. It promotes regional regeneration by establishing strong links with local suppliers to promote the growth of local businesses, organising special events throughout the year to reduce the impact of seasonal variation in tourism, and developing a sense of pride in the region by improving its national and international image. The project also provides advice and support for local community groups.

1.2 Motivation for building a system of outcome indicators

A decision to collect and monitor data for evaluation purposes was taken from the outset by the board of executives who manage the project. The intention was to monitor visitor profiles, evaluate the project's educational activities, and monitor sustainability goals, which are an integral part of the project design. In addition, it was decided that an ongoing evaluation process would help with obtaining further funding by providing evidence on the extent to which the project was fulfilling its aims.

As part of this ongoing evaluation process, the management team decided to develop an ongoing monitoring programme, involving the use of visitor and business surveys, managed by a full-time researcher based on-site. The researcher is tasked with developing the survey work, analysing the results, and reporting back to the management team. This was especially useful for the purposes of marketing, operations, retail and the development of educational programmes, as well as to provide material for internal and external evaluations.

1.3 Selection of indicators

Since the project aims to address environmental, social and economic objectives, the outcome indicators used also reflect these areas. The Eden Project follows also a "triple bottom line" business approach whereby managers are required to consider the financial, social and environmental implications of every investment decision they make.

The topics covered by the in-house surveys were initially decided on by the management team, while the use of additional data was mainly due to of an evaluation conducted in 2008-2009 by the South West Regional Development Agency (SWRDA) which provided substantial funding for the project. The indicators chosen therefore reflect the requirements of the SWRDA and the Regional Development Agency Impact Evaluation Framework (IEF), a set of national guidelines for Regional Development Agency (RDA) funded-projects, adopted in 2006. The indicators were intended to show the ongoing progress of the project in terms of its objectives, and to provide input for the management in order to improve the visitor facilities and relationships with local suppliers. In addition, it was decided that carrying out regular reviews was beneficial in terms of attracting future funding.

The indicators were constructed using both publicly available data and surveys managed by the project itself. The data cover both the local level (the area immediately surrounding the village of Bodelva), and the county level, and intend to assess the impact of the project for the local area and for Cornwall more generally. The indicators are compared to the overall trends for the South West region, and the UK.

The data sources used are:

(a) *Data on employment and economic activity from national government data sources.*

The project uses data on social and economic indicators for the local area and the county (Cornwall), and studies changes in these indicators over time and in relation to the rest of the UK. Since one of the aims of the project is to promote regeneration via new firm formation and productivity growth, the project uses figures on GVA per capita, employment growth, job density, the proportion of employees in the tourism sector, and the proportion of tourism workers who are in full-time (as opposed to part-time) employment. These figures are taken from Annual Business Inquiry, JSA claimant rates and other data provided by the Office of National Statistics (ONS).

(b) *The Annual UK tourism Survey (UKTS), International Passenger Survey (IPS) and Visit Britain.*

These statistics are used to analyse the number of trips involving an overnight stay, reasons for the trips (e.g., tourism, business, visiting family and friends), and length of the trip. The resulting figures are used to measure the performance of the tourism sector in Cornwall, relative to other counties in the South West of the UK, and the UK average. Data from the International Passenger Survey (IPS) is used to analyse trips involving overseas visitors. Visitor figures provided to the tourism umbrella group Visit Britain by attractions in Cornwall are used to measure the effect of the Eden Project on other local tourist attractions.

(c) *The National Omnibus Research (EDF Energy) survey.*

This survey, conducted in 2004 and 2005, captures brand awareness in the UK, and the likelihood that respondents will visit a given tourist attraction. The survey was used as part of the SWRDA evaluation process, and showed that the Eden Project had the greatest brand awareness in the

Midlands and South of the UK, particularly in the areas of environmental sustainability, education and renewable energy, covering some of the main objectives of the project.

(d) Visitor Profile and Business Survey, organised in-house

The ongoing visitor survey is one of the most comprehensive carried out within the tourism sector in the UK, with over 150,000 visitors surveyed since 2001. The survey is used both for operational purposes (to improve visitor infrastructure), but also to measure the extent to which the Eden Project attracts visitors who would not otherwise have come to the region. The survey measures whether they made use of local facilities and also visited other attractions in the area. One of the key aims of the project is to extend the tourism season beyond the traditional peak summer period, and the visitor survey captures the numbers of visitors during off-peak periods, and whether they also stayed in the region to visit other local attractions.

The Business Survey tracks the impact of the project on local businesses (such as hotels and restaurants), with a focus on changes in their investment decisions, business performance and business practices as a result of the project. The indicators generated include local employment, turnover, levels of investment, product range and productivity. The survey is carried out every two years in order to monitor progress.

(e) Additional visitor and supplier surveys, carried out on behalf of the regional development agency SWRDA.

As part of an evaluation in 2008-2009 by the SWRDA two additional surveys were carried out: a survey of 100 suppliers, and a supplementary visitor survey based on a sample of 500 individuals. Both were used to provide supplementary information on the impact of the project. The regional development agency also surveyed key stakeholders, including funders and tourism organisations. This latter survey collected mainly qualitative data, and the results indicate that most local stakeholders thought the project had had a substantially positive effect on the region. In particular, the stakeholders highlighted improvements in the business environment, increased demand for goods and services, and the creation of favourable conditions for business start-ups. A negative aspect highlighted by the stakeholder survey was an increase in traffic congestion, an issue that the management is currently working on.

1.4 Compliance with established requisites

The use of outcome indicators by the Eden Project complies with most of the established methodological requisites considered as part of this study, with the exception of the requisite of being widely available and open to debate.

(a) Reasonable

The indicators used capture the different aspects of the objectives and priorities of the Eden Project, including environmental sustainability, attraction of visitors to the area, extension of the tourism season, improvements in the productivity of local business, and increase in employment opportunities in the local area. The project management team and evaluators are careful in

acknowledging which aspects of their aims the indicators do or do not address. Taken as a whole, the indicators cover all important priority areas of the project.

(b) Normative

It is clear from the use of the indicators in evaluations that the management team and external evaluators have a clear view of the direction in which the indicators are expected to move in order to show a positive or negative outcome. The interpretation of negative results is also objective, e.g., when it comes to job creation in the local area, and traffic congestion.

(c) Robust

The official data sources used are produced by widely accepted providers such as the Office of National Statistics (ONS) and the International Passenger Survey (IPS). Where there are limitations, such as in the case of the UK Tourism Survey (UKTS) which changed its methodology over time, these are clearly acknowledged. The surveys conducted in-house by the Eden Project all follow internationally accepted sampling and methodological practices, and the employment of a full-time researcher confirms the value placed on a robust treatment of the survey work.

(d) Responsive to policy

The indicators chosen are all closely linked to the priority areas of the Eden Project, and the use of data sources at different levels of aggregation, ranging from visitors and suppliers to the project, local businesses and residents, and regional outcomes, are all intended to show the impact of the project in the clearest possible way.

(e) Feasible

The indicators used are based on a range of readily-available official data, data sources used widely in the sector, and surveys conducted by the project itself. The costs of the in-house survey are not considered large enough to require separate budgeting, and the only considerable expense is the employment of a researcher, and more recently, the recruitment of a research assistant. The costs are considered by the management and stakeholders to be of a fairly small magnitude.

(f) Debatable

While the results of an evaluation carried out in 2008-2009 by the SWRDA are available on the internet, the results of the in-house survey, and other detailed work by the Eden Project research team are not readily available, and neither is there a link to the evaluation report on the project website. The data sets resulting from the survey are also not available to the general public, nor is there evidence of any public involvement in the design of the indicators. This could be an area for future improvement.

1.5 Use of indicators in the evaluation and programming process

The use of surveys conducted by the Eden Project itself, including the Visitor Profile Survey and the Local Business Survey, is extensive and occurs on an ongoing basis. The results of the surveys have been used, for instance, to expand the educational programmes provided by the project, and improvements to educational and visitor infrastructure. The employment of a dedicated researcher who regularly meets with the management team is a very positive approach that has resulted in a close link between the overall management and strategy of the project, and the construction and use of appropriate indicators.

A major evaluation by the SWRDA, the regional development agency, in 2008-2009 resulted in the development of a wider range of indicators, including the extensive use of official statistics, and the development of a detailed survey of stakeholders. It is not clear whether the use of these indicators will be a one-off event, or will be repeated in the future, as the SWRDA is in the process of being replaced by several new local development agencies.

The lack of public availability of the data and of ongoing research results is a limitation of the approach followed by the project. The involvement of the local community in the design of the indicators used to evaluate the project would be a positive step to follow in the future.

2. *Programme for Peace and Reconciliation (PEACE I, II, III), Border Region of Ireland and Northern Ireland, UK*

2.1. *Overview*

The EU Programme for Peace and Reconciliation in Northern Ireland and the Border Region of Ireland (PEACE) was first implemented in 1995-1999, as a means for the European Union (EU) to make a positive contribution to the peace process in Northern Ireland. At the time of its implementation, there had been announcements of cessation of violence by the main republican and loyalist paramilitary groups. The programme has been implemented in three phases, PEACE I (1995-1999), PEACE II (2000-2004) and PEACE III (2007-2013).

The overall aim of the programme is to “reinforce progress towards a peaceful and stable society and to promote reconciliation”. This is achieved through projects that address the legacy of the conflict, and support new opportunities arising from peace. An important focus of the programme is on activities aimed at specific individuals and groups, such as victims of the conflict, old and vulnerable people, disabled people, victims of domestic violence, ex-prisoners and the young unemployed. The Special EU Programmes Body is in charge of managing the programme, as well as additional projects related to inter-regional co-operation on areas such as agriculture, tourism, transport, environment, education and health. The programme is relatively large and complex, for instance the PEACE II phase, implemented over 2000-2004 and later extended to 2005-2006, involved 56 implementing bodies plus various consortia members and funding authorities.

The programme is designed to be implemented in both Northern Ireland and the Border Region of Ireland, with extensive monitoring of outputs and results on both sides of the border. Given its unique aims of promote reconciliation and trust across communities, the programme is unique in that many of its indicators are based on attitudinal outcomes, and consequently, the data used in evaluating the programme is both quantitative and qualitative.

2.2 *Motivation for building a system of outcome indicators*

The use of ongoing monitoring based on outcome indicators was initially considered for PEACE I and further developed for PEACE II. The motivation for the use of outcome indicators came from the PEACE II Monitoring Committee, which is chaired by the Managing Authority and includes representation from the Departments of Finance (North and South), business, trade unions, the agricultural, fisheries and rural development sectors, and the community and voluntary sector. The lessons learned in collecting and using quantitative and qualitative data as part of the PEACE II evaluation process were used to develop a comprehensive monitoring and evaluation plan for the PEACE III programme from the outset.

2.3 *Selection of indicators*

The outcome indicators used by PEACE II and PEACE III are mainly derived from two surveys, an Attitudinal Survey designed and carried out directly for the PEACE II and PEACE III programmes, and the Northern Ireland Life and Times survey, carried out annually by Queens University Belfast and the University of Ulster.

(a) Attitudinal Survey

Many of the outcome indicators used by the programmes are based on to the results of the Attitudinal Survey, first conducted as part of the PEACE II programme. The questionnaire used in the survey is based on the work of two academics, Ed Cairns from the University of Ulster, and Miles Hewstone from the University of Oxford, who both specialise in the field of intergroup relations, with special reference to Northern Ireland. The questionnaire was later amended by the PEACE II Monitoring Committee to ensure that it met the requirements necessary for evaluating the programme. The survey was first conducted in 2004, and was designed to measure attitudinal change among participants of the programme over time, and attitudinal differences between project participants and the general population of Northern Ireland.

For the PEACE III programme, the survey was conducted in 2007 as a benchmark, with a follow up survey in 2010, and a third survey planned for 2013. The outcomes to be measured are changes in attitudes towards cross-community and cross-border initiatives, the proportion of beneficiaries who have contacts and friends in the other community, and the level of trust and tolerance among participants. The survey includes questions such as:

- How willing are you to participate in cross-community activities?
- About how many of your friends are from the other community?
- Would you mind or not mind if a person from the other community moved into an area where you live?

There is no indication of exactly how expensive the Attitudinal Survey is, but given the small sample size required the cost is likely to be minimal relative to overall expenditure on the management and administration of the programme.

(b) Northern Ireland Life and Times Survey

The second survey is the Northern Ireland Life and Times Survey, which has been carried out annually by Queen's University Belfast and the University of Ulster since 1998. The survey aims to record attitudes, values and beliefs of the people in Northern Ireland on a wide range of social and economic issues, ranging from healthcare and housing, to social, political and identity matters.

This survey was used in the PEACE II programme to evaluate how attitudes towards community relations have changed over time, and in particular, it is used to measure changes in the indicator “percentage of adults who think relations between Protestants and Catholics are better than they were five years ago”.

2.4 Compliance with established requisites

The indicators used in the PEACE II and III programmes comply with all of the requisites outlined below, with the exception of being debatable, since some of the survey results are not freely available to the public. There is also no mechanism for the public to influence the development of the indicators used to evaluate the programmes.

(a) Reasonable

The outcome indicators are reasonable in the sense that they capture overall changes in wellbeing at the programme level. Even though specific projects within the programme address different aspects of the community life by, for instance, providing training, encouraging entrepreneurship, providing counselling, and improving co-operation among public organisations, the overall programme objectives are of promoting reconciliation and improving trust across communities are well captured by the outcome indicators used.

(b) Normative

The Monitoring and Evaluation Plan for PEACE III clearly sets out the direction in which the indicators are expected to change. For instance, for the indicator “Proportion of people who have contacts / recognised friends in the other community”, the indicator is a percentage, and is expected to increase with respect to the 2007 baseline. Similarly, the indicator “Changes in attitudes towards cross-community and cross-border activities”, based on questions such as “How willing are you to participate in cross-community activities”, is also expected to increase.

(c) Robust

The data from the Attitudinal Survey and the Northern Ireland Life and Times Survey are both collected using internationally-recognised standards, and the questionnaires used in the surveys have been developed by academic and policy experts in the field.

(d) Responsive to policy

The indicators are linked directly to the main objectives of the programme, and reflect the attitudinal changes the programme is aiming to achieve. Moreover, because the indicators are

measured both for participants and non-participants, they can be used to analyse direct effects of the programme on participants, and compare these with the wider change in attitudes in the general population.

There is an issue, however, in separating the effects of the programme from those occurring on a larger scale at the community level. For instance, since 1999 there have been periods of greater and lesser tension linked to political factors, and it is difficult to control for these and isolate them from the outcomes of the programme. This is particularly significant in the case of the indicators based on the Northern Ireland Life and Times survey, which is not linked to participation in the programme.

(e) Feasible

The indicators are constructed using both an in-house survey and publicly available data. The publicly available data are freely available, and their use results in no additional cost for the programme. The in-house survey is relatively small, covering 500 participants and 1,000 non-participants in 2004 and 2007, so the cost is very small relative to the overall budget of the programme.

(f) Debatable

Although the choice of indicators was made by a Monitoring Committee with representation from the government, business, the trade unions and community organisations, the results of the in-house Attitudinal Survey are not available to the public, except when referred to in evaluation reports and presentations. There is therefore no mechanism for the public to discuss and influence the choice of indicators directly. The second survey used, the Northern Ireland Life and Times Survey is external, and the resulting data are freely available online. However, also in this case, there is no direct mechanism for the public to influence the choice of questions, or how the data are used to construct the indicators.

2.5 Use of indicators in the evaluation and programming process

The outcome indicators used in the programmes are directly linked to the policy objectives and interventions funded under the programme, and their use in the PEACE II and III programmes was explicitly considered from the outset. A Monitoring Committee is in charge of managing the design and implementation of the in-house survey, and the construction of the indicators to be used in the evaluation process.

The timing of the data collection is also closely linked to the programme. For the PEACE III period (2007-2013), a baseline version of the Attitudinal Survey was carried out in 2007, with follow-up surveys in 2010 and 2013, and these deadlines are designed to coincide with mid-term and final evaluations of the programme. The Northern Ireland Life and Times survey is carried out yearly, and so can be used for ongoing monitoring purposes.

The outcome indicators for the PEACE II period provided mixed results. In particular, the 2007 Attitudinal Survey found that although more participants had had contact with the other community (relative to the general population), the proportion was similar to that of 2004 in

Northern Ireland, and only slightly higher in the Border Region of Ireland. In terms of trust levels, the proportion of positive responses was lower than in 2004, although this was due to a higher proportion of “neither” responses, rather than negative ones.

Following these mixed results, there is some evidence that the types of projects funded through the PEACE III programme are likely to be more closely linked to the main aims of improving trust and reconciliation than the projects funded through the PEACE II programme. The issue of lack of public participation in the development of indicators and debate regarding the achieved results could be improved on, for instance, by making the Attitudinal Survey data publicly available.

3. *URBAN II, Aarhus, Denmark*

3.1. *Overview*

Aarhus is the second largest city in Denmark with 300,000 inhabitants, and is located on the peninsula of Jutland. The URBAN II programme for Aarhus received over €5m in ERDF funding, and focused on three neighbourhoods in the city, characterised by their high levels of economic deprivation. These neighbourhoods are dominated by 1960s high-rise housing estates, and are comprised of a large proportion of ethnic minority residents. At 13.5%, the unemployment rate is substantially higher than the national average of 4.8%. The URBAN II programme was designed to address several socio-economic issues including high crime, low educational attainment, high unemployment rates and low participation in leisure activities, in addition to specific issues related to the integration of ethnic minority groups.

Moreover, instead of focusing on economic issues of low skills and high unemployment rates directly, it targeted related issues such as community cohesion, lack of entrepreneurship, lack of IT skills and low participation in leisure activities. The latter, in particular, was seen as an important step in promoting the integration of ethnic minority groups. The programme ran over the period 2000/2006, and was part of a wider initiative carried out across the EU. Each regional programme had relative flexibility in choosing the indicators to be used as part of the evaluation process. The Aarhus programme selected a number of outcome indicators based on existing statistical resources, and also collected its own data through a survey of local residents.

3.2 *Motivation for building a system of outcome indicators*

The use of impact indicators was required as part of the evaluation process of the wider URBAN II initiative, but the Management Authority went further in actively involving the local community in the process of developing the indicators and helping to manage the projects funded by the programme. This proved to be difficult at the start of the programme, as the Management Authority found that the bottom-up approach to project development was more time consuming than a top-down approach, meaning that early community involvement was limited. However, community involvement increased substantially in final years of the programme. Table 2 shows the outcome indicators, as well as the baseline, target and figures for 2004.

Table 2: Indicators used in the URBAN II – Aarhus programme.

Indicator	Baseline (2000)	Target	2004
Employment rate.	47%	+3% per year	47%
Share of the population from ethnic minority groups.	50%	-10%	53%
Share of the population with post-compulsory education.	53%	55%	54%
Incidence of crime (per 10,000 population).	65	45	52
Participation of children and young people in leisure and cultural activities .	50%	80%	68%

In addition, as part of the mid-term evaluation, the programme commissioned a survey of local residents, which showed that a majority of residents felt positively about the programme. In particular, a majority felt that positive things were happening in the area (66%), that the area's prospects were looking brighter (64%), and that there were more opportunities than before the start of the project (73%).

3.3 Selection of indicators

The indicators were selected by the Management Authority, in consultation with the evaluators, and based on indicators used by similar initiatives. Given the nature of the Aarhus programme, which included attitudinal changes as one of its major objectives, it was felt that there should also be primary data collection. The outcome indicators based on existing data were modified slightly following the mid-term evaluation to ensure that the required data was available and reliable. The additional cost from running the survey of residents was minimal (Ecotec, 2009).

3.4 Compliance with established requisites

Although the indicators used by the programme are relatively general, that is, not too closely linked to the actual projects funded by the programme, they are normative, robust and feasible. The use of a survey of residents, and community involvement in the programme design and evaluation resulted in significant public debate, which may explain the high levels of community satisfaction with the programme.

(a) Reasonable

The Management Authority and the evaluators are aware that for some of the outcome indicators used (e.g., the employment rate), the link to the policy initiatives is not immediate and direct. However, for other indicators, such as the participation rate by children and young people in

leisure activities, the indicators are arguably very closely linked to the programme, which devoted 47% of resources to these activities.

(b) Normative

For most indicators there is a clear argument as to the direction the indicator is expected to move in to show a favourable (or unfavourable) result. There is some controversy as to whether the indicator capturing the “share of the population from ethnic minority groups” is a good indicator for encouraging integration, and the resulting change is therefore inconclusive. Moreover, there are some projects such as those aimed at tackling alcohol and drug addiction for which no appropriate indicators were developed due to a lack of data.

(c) Robust

The data used were mostly taken from established statistical sources and are therefore considered robust, with methods that satisfy international standards. There were some limitations in terms of the available data sources, for instance, it was acknowledged that children and young people may be involved in leisure activities other than those captured by the survey, and that the data on crime may reflect police efficiency, rather than the incidence of reported crime or the fear of crime. The survey itself was relatively short, and the programme would have benefitted from the use of a longer and broader survey to better capture some of the outcomes.

(d) Responsive to policy

As discussed above, the indicators were chosen to reflect most of the areas of primary focus of the programme, and for the most part are closely linked to the policy outcomes they are expected to measure. There was some discussion as to whether a broader set of indicators would be more effective in capturing attitudinal and cultural changes, and this was one of the reasons for carrying out the survey of residents as part of the mid-term evaluation process.

(e) Feasible

The outcome indicators are mostly built on underlying data, which is publicly available, and were therefore a very small burden to the programme. However, some indicators (such as those capturing changes in alcohol and drug abuse) were dropped following recommendations made at the mid-term evaluation, due to a lack of appropriate data. The survey of local residents carried out by the programme to capture attitudinal changes was fairly small and inexpensive.

(f) Debatable

One of the most positive aspects of the programme, which was identified by the local community, the evaluators and the overall URBAN II initiative co-ordinators, was the extent to which the programme succeeded in involving the local community in its development. Although initially there were delays as this approach took longer to set up, it eventually brought greater rewards in terms of the perceptions of the local community towards the effectiveness of the programme. Although the outcome indicators used were not chosen with the direct involvement of the local

community, the use of a survey of residents encouraged debate among the general public as to the effectiveness of the programme.

3.5 Use of indicators in the evaluation and programming process

The indicators were used mainly during the mid-term evaluation, and the set of indicators used was also amended at this point to reflect issues of data availability, and identify measures that provided a better fit. In this context, the survey of local residents was especially effective in generating interest in the programme, and encouraging the involvement of the local community in its development, which led to significantly greater involvement during the second half of the programming period. Although the aims and objectives of the programme were not amended following the mid-term evaluation, there was a greater focus on community involvement, and the use of the indicators helped to identify gaps in the coverage of existing data sources that could be addressed in the future.

4. Marche Region ERDF Programme 2007-2013, Marche, Italy

4.1. Overview

Marche is a region of Italy, located in the central area of the country, on the Adriatic coast. It has historically been considered an agricultural region, with a per-capita income below the Italian average, although it has in recent years seen the growth of industries such as leather and footwear, furniture, household appliances and larger-scale engineering companies. The region is due to receive €289 million as part of the Regional Operational Programme for the period 2007-2013, with €113 in European Regional Development Fund (ERDF) funds. Of these, 41.5% of the funds will be assigned to the Innovation and Knowledge Economy area (Priority 1). This case study focuses on the use of outcome indicators as part of the Priority 1 of the programme.

The Innovation and Knowledge Economy priority (Priority 1) aims to strengthen the regional innovation system by supporting SMEs, encouraging technology transfer and promoting co-operation between firms, higher education institutions and public sector organisations. SMEs will benefit from easier access to credit and financing, and an improved system of financial guarantees. The region has been using outcome indicators to assess the effectiveness of EU programmes since the 1994-1999 programming period, and has improved the quality of the indicators, and strengthened their link to policy, over the 2000-2006 and current (2007-2013) programming periods.

In particular, in the 1994-1999 programming period, indicators were used to provide a contextual measure of the impact of the programme. Over 2000-2006 the number of indicators increased, as did the use of multiple statistical sources. However, it was felt that this resulted in a loosening of the link between the objectives and the indicators; as a result there has been a drive to reduce the number of indicators, and to more closely link the indicators to the specific objectives of the programme. This has resulted in a consolidation of the indicators, from 36 to 18 (a reduction of 50%), and the development of 9 new indicators. Table 3 shows the proposed outcome indicators for Priority 1 for the 2007-2013 period.

Table 3: Proposed outcome indicators for Priority 1, 2007-2013.

Objective	Outcome indicators	Motivation
1. Enhance technology transfer to SMEs	- % of regional firms introducing product or process innovations.	To measure the level of innovation in SMEs, beyond investment in R&D.
2. Promote R&D	- Number of academic spin offs - R&D expenditure (as a % of GDP). - Employment rate of university graduates in the region, 3 years after graduation.	To measure the capacity of the regional innovation system (SMEs, higher education institutions, public sector organisations).
3. Promote access to credit	- Regional credit intensity (annual bank loans as a % of GDP). - Financing capacity (interest rates on cash loans relative to Centre North average).	To measure the negotiating capacity of SMEs with the banking system.

The baseline rates for these indicators have been identified, and generally correspond to the values for 2008/2009 (where available). The data sources include the Italian National Institute for Statistics (*Istat*), the *Italian Network for the Valorisation of University Research* (Netval), and the Bank of Italy.

4.2 Motivation for building a system of outcome indicators

The decision to use outcome indicators was taken by the Managing Authority, in consultation with the evaluators, initially to provide contextual evidence on the impact of the programme, and later to provide more detailed measures of impact that are closely linked to the objectives of the programme. The indicators used have been further developed with each new funding period, ranging from simple impact indicators in 1994/1999, to a larger set of indicators in 2000/2006, and a smaller, but better targeted set in the current period 2007/2013.

4.3 Selection of indicators

In the 1995/1999 and the 2000/2006 programming periods, the indicators were chosen by the Managing Authority and the technical consultants, including the evaluator, for use in monitoring the impact of the programme. They proved to be very informative, and for the current round 2007/2013 the indicators were further developed with the participation of the full range of regional agencies involved in delivering the programme, and crucially, also involving the statistics service. This approach resulted in a better fit between the objectives and expected outcomes of the programme, and also the definition of baselines and targets. For the current programming period there was also an attempt to involve regional stakeholders in the process, but this proved difficult as there was little interest from them to participate. All the data used are publicly available, and there was little additional cost involved.

4.4 Compliance with established requisites

The programme complies with most of the requisites outlined below, in particular, the indicators are reasonable, normative, robust, and responsive to policy. However, it proved difficult to involve regional stakeholders and the public in the development of the indicators and in the debate over the outcomes of the programme. The latter is something that the Managing Authority and evaluators are hoping to address in the future.

(a) *Reasonable*

There has been a concerted move to more closely link the indicators to the objectives of the programme. This has involved adopting a “theory of change” approach, whereby the background to each objective is analysed, and the ultimate outcomes of the programme are identified. The choice of outcome indicators is then directly linked to these theories of change. As a result, the indicators are closely linked to the outcomes of the programme, and there is a detailed argument as to why the indicators are good measures for these outcomes.

(b) *Normative*

The direction of change for the chosen indicators was already identified in the previous programming period of 2000/2006, but in the current period 2007/2013 the Management Authority has also identified baselines, with a view to quantifying the extent of improvement (or otherwise) of the outcome indicators.

(c) *Robust*

The indicators used are all based on national data provided by statistical and government agencies such as the Italian National Institute for Statistics (*Istat*), the Italian Network for the Valorisation of University Research (*Netval*), and the Bank of Italy. Since the data are publicly available and compiled by official statistical agencies, they are open to public scrutiny, and are understood to apply reliable methodologies.

(d) *Responsive to policy*

The indicators have in the past been chosen either at the start of the programming period, or revised during subsequent evaluations. However, there has been a substantial effort to link the indicators more closely to policy outcomes in the current period 2007/2013. The motivation for using specific indicators has recently been made more explicit, and several agencies and the statistics service of the region have become involved, making the process of choosing the indicators more transparent.

(e) *Feasible*

The data for the chosen indicators are all provided by national statistical and government agencies, and are readily (and publicly) available. The cost to the programme of using the data is therefore very small.

(f) *Debatable*

The data used to construct the indicators is publicly available, and therefore readily available to the regional stakeholders and the general public. There was a significant attempt on the part of the Management Authority and the evaluators to involve the relevant stakeholders in the process of identification of the indicators. However, there was little interest on the part of the stakeholders to become involved. The Management Authority has noted that this is an issue that it hopes to address in the future.

4.5 Use of indicators in the evaluation and programming process

The main aim of the system of indicators used by the programme was to assess its impact, and to provide inputs for the evaluation process. However, in the current programming period there has been a shift in focus towards also using the indicators to improve transparency and accountability, and to clarify the link between the expected outcomes of the programme, and the measurement of these outcomes. This resulted in a reduction in the number of indicators, and consolidation of existing measures of impact. The system of indicators is still in the process of being developed, and has not yet influenced the policy process in any significant way, although there are expectations that it will do so in the future. There are also plans to involve the public and regional stakeholders in the process of the development of the indicators and subsequent debates on the impacts of the programme.

5. Guadalinfo, Andalusia, Spain

5.1. Overview

Guadalinfo is an initiative to improve public access to ICT services, and through this, promote social cohesion and regional development. It is aimed specifically at small towns and rural areas, and within them areas, at those who are at most risk of social exclusion. The project was set up and implemented by the Ministry of Innovation, Science and Enterprise of Andalusia, with financial support from the ERDF, the regional government, the provincial government and the town hall of each town supported by a Guadalinfo centre. The project began with an ERDF-funded pilot over 2002-2004, and three subsequent phases between 2004 and 2009. Over this period, the project has set up Guadalinfo centres in all 636 Andalusian municipalities with fewer than 10,000 inhabitants.

The purpose of the Guadalinfo centres is to offer local residents and firms the opportunity to become more familiar with IT services, through the availability of equipment, broadband internet access, and the support of trained staff who offer advice and training. The main objectives of the project are:

- To establish a Guadalinfo centre in every Andalusian town with under 10,000 inhabitants, offering broadband internet access.
- To attract those who are unfamiliar with ICT, or who do not use ICT due to a lack of means or lack of access.
- To enable all citizens to become further involved in the democratic process via the use of ICT.

- To increase ICT literacy in the most remote and disadvantaged areas.
- To support local cultures by enabling their dissemination via the internet.

Further objectives include training for businesses and entrepreneurs, and support for other online initiatives in Andalusia.

While all residents in towns of under 10,000 are encouraged to use the Guadalinfo centres, socially excluded groups such as the elderly, stay-at-home mothers and carers, young people without the means to progress to further education, those with low educational attainment, and those subject to discrimination such as ethnic minorities, immigrants, the disabled, and the unemployed are particularly targeted by the project.

5.2 *Motivation for building a system of outcome indicators*

The project implemented a comprehensive monitoring and evaluation system from the outset, which included both the measuring of outputs, and the monitoring of outcomes and wider impacts. Most of the emphasis was initially placed on an online monitoring tool that provides output indicators for every Guadalinfo centre, and is updated every month. This includes the number of users per centre, the number of times they have logged in, the length of time spent in the centres, and user profiles by age, gender, occupation and income. These results are collated into a project-wide report published every six months.

It was also recognised that a wider set of indicators was needed to capture the impact of the Guadalinfo centres on quality of life in Andalusia. The chosen outcome indicators include the percentage of the population who make use of the Guadalinfo centres, and the IT literacy of the rural population as a whole. During the second phase of the project, the management team also made use of annual surveys conducted by IESA, a higher-education institution in Andalusia, which capture attitudinal changes in variables such as the percentage of the population in Guadalinfo towns that considers computers unnecessary. Other indicators used include improvements in well-being as a result of the use of ICTs, and the impact of ICTs on the quality of life of those living in rural areas, the disabled, the elderly and the immigrant population. These surveys are known as Public Opinion Barometers (Barómetros de Opinión Pública, BOPA).

5.3 *Selection of indicators*

The indicators were chosen by the management team of the project, which includes representatives of the regional government, the provincial governments, the town halls of small, rural communities (with under 10,000 inhabitants) and the Regional Ministry of Innovation, Science and Enterprise. Initially, as discussed above, the focus of the monitoring programme was to measure the use of the Guadalinfo centres using an online monitoring tool, the results of which could be used to capture the needs of the local community, and tailor services according. As the project progressed a need to also evaluate outcomes was identified, and the resulting indicators were mainly used for evaluation purposes. The BOPA data collected by IESA was very useful for this purpose, and IESA also adapted its surveys to include more detailed questions related to the

expected outcomes of the Guadalinfo project. Since the indicators are based on existing data, the costs to the project are relatively small.

5.4 Compliance with established requisites

The outcome indicators that were eventually used in the evaluation process comply with most of the requisites outlined below, with the exception of being debatable, since there was no community participation or involvement in their development. Moreover, although the indicators are reasonable, normative and responsive to policy, these characteristics have not been clearly articulated by the Guadalinfo management team. As a result, the outcome indicators are used mainly to discuss the context of the project in evaluation reports.

(a) Reasonable

The outcome indicators used capture the essence of the objectives of the programme, including the uptake of ICT use, the attitudes of those affected towards the usefulness of IT and the internet, and the impact on the quality of life of the population as a whole, and the groups that were specifically targeted by the programme. As such, the link between the objectives of the programme and the indicators is very good, and there is a clear argument to be made for the use of these variables. However, although the link is good, it was not articulated explicitly by the Guadalinfo management team, and was only prominently used in the evaluation process.

(b) Normative

Given the clarity of the objectives, and the close link between the indicators and those stated objectives, there is a clear interpretation of changes in the outcome indicators, and their interpretation in terms of the stated aims of the project. However, as with point (a) above, this interpretation was not clearly articulated by Guadalinfo at the start of the project, and was instead discussed during the evaluation process, and by IESA in its annual reports.

(c) Robust

The data used are of high quality, and were collected by IESA using internationally-recognised methods. In particular, the sample size is large, and the survey uses a complex sampling method that also takes into account different locations, age and gender groups. The data is also subject to quality control checks.

(d) Responsive to policy

The data used to develop the indicators were collected by a separate organisation which is well-respected in the region, and this contributes to the transparency and accountability of the evaluation of the programme. The data used in the evaluation were collected after the first phase of the project had concluded, and while the second phase was in progress. It is therefore reasonable to expect that it reflects the outcomes of the policy intervention. Moreover, no other ICT-related developments occurred in the region during this period. For instance, private-sector companies were reluctant to invest in broadband access to rural areas, one of the motivations for the continuation of the project beyond its pilot phase.

(e) *Feasible*

Given that the outcome indicators were based on data collected by a separate organisation, the burden in terms of cost for the project is minimal, especially in the context of a more technically demanding process of collection of output data. The project could, however, expand its use of outcome indicators by using other publicly available data on the uptake of ICT in the region.

(f) *Debatable*

There was little community involvement in the development of the outcome indicators, or afterwards in terms of debating their usefulness or the overall impact of the project. There was greater involvement by academics, particularly those affiliated with IESA, who analysed the improvements in ICT use in Andalusia in parallel to the evaluation of the project. The data are, however, publicly available as part of the IESA reports on its BOPA surveys.

5.5 *Use of indicators in the evaluation and programming process*

The project made extensive use of output indicators, particularly in the initial phases when it was adapting the Guadalinfo centres to the needs of the local community, and ensuring that socially excluded groups were making use of the facilities provided. The use of outcome indicators was seen as being of greater importance in the evaluation process rather than the ongoing programming process. Nevertheless, their usefulness became apparent during the evaluation conducted after all the centres had been established, and before its current phase (Metis, 2009). It is hoped that outcome indicators will be further integrated into the project as its objectives change from providing ICT facilities across the region, to increased networking and involvement of the residents of Andalusia in online governance initiatives, and the use of ICT in promoting entrepreneurship and innovation.

6. *Tasmania Together, Tasmania, Australia*

6.1. *Overview*

Tasmania is an island state in Australia, with a population of around 500,000, and a relatively large and unspoilt natural environment. Almost 37% of the population lives in nature reserves, national parks and World Heritage Sites. The traditional industries are mining, agriculture, forestry and tourism, and some manufacturing, which has been in decline since the 1990s, which led to a drain in the skilled population to mainland Australia. Since 2001 there has been an improvement in the economy, particularly due to increased tourism following an improvement in transport links such as low-cost flights.

Tasmania Together is a 20-year social, environmental and economic plan for the State of Tasmania. The plan is intended as a community vision for the state, and includes an associated set of indicators to measure progress towards this vision. It was launched in 2001, and its broad goals, identified by residents via a consultation process, reflect the priorities of the community for the future.

For each goal, there is an associated “headline indicator”, intended to serve as a snapshot of progress over time. Each goal is then broken down into a number of benchmarks, which capture progress on the more detailed objectives of the programme. The plan is reviewed every five years to reflect changes in community priorities and the availability of new progress measures. The original plan included 24 goals and 212 benchmarks, although these were later revised and consolidated into 12 goals and 151 benchmarks. Table 4 shows the 12 current goals of the programme.

Table 4: Tasmania Together goals and associated headline indicators.

<i>Goal</i>	<i>Headline indicator</i>
1. A reasonable lifestyle and standard of living for all Tasmanians.	Cost of living
2. Confident, friendly and safe communities.	Feeling safe
3. High-quality education and training for lifelong learning and a skilled workforce.	Literacy and numeracy
4. Active, healthy Tasmanians with access to quality and affordable health services.	Avoidable mortality
5. Vibrant, inclusive and growing communities where people feel valued and connected.	Urban/regional population
6. Dynamic, creative and internationally recognised arts community and culture.	Attendance at cultural heritage sites
7. Acknowledgement of the right of Aboriginal people to own and preserve their culture, and share with non-Aboriginal people the richness and value of that culture.	Cultural interpretation at visitor centres
8. Open and accountable government that listens and plans for a shared future.	Local government elections
9. Increased work opportunities for all Tasmanians.	Workforce participation rate
10. Thriving and innovative industries driven by a high level of business confidence.	Investment growth
11. Built and natural heritage that is valued and protected.	Land protection
12. Sustainable management of our natural resources.	Greenhouse gas emissions

Each benchmark consists of a standard (a more specific objective), an indicator with baseline data, and targets set at 5-year intervals. As an illustration, Table 5 shows an example of a set of benchmarks associated with Goal 9: Increased work opportunities for all Tasmanians. There are

four indicators for the first standard for this goal, “Increase the number of secure, flexible and well-paid jobs”.

Table 5: Benchmarks, indicators and targets associated with Goal 9: Increased work opportunities for all Tasmanians.

<i>Standard</i>	<i>Indicator(s)</i>	<i>Targets</i>
1. Increase the number of secure, flexible and well-paid jobs.	1.1 Workforce participation rate Trend at June 2011 Tas: 58.5% Aus: 63.6% <i>Source: Labour Force, Australia (ABS 6202)</i>	2005: Achieve progress towards the national participation rate 2010: National average participation rate 2015: Maintain 2020: Maintain
	1.2 Extent of under-employment Sept 2000: 7% of employed persons (13,900 people) <i>Source: Underemployed Workers, Australia (ABS 6265)</i>	2005: 6% 2010: 5% 2015: 4% 2020: 3%
	1.3 Proportion of employees in secure employment 2000: 73.7% <i>Source: Australian Labour Market Statistics (ABS 6105)</i>	2005: Improvement 2010: 75% 2015: 78% 2020: 80%
	1.4 Tasmanian average weekly earnings as a proportion of national average weekly earnings May 2001: 91.4% (Tas \$753.60, Aus \$824.10) <i>Source: Average Weekly Earnings, Australia (ABS 6302)</i>	2010: 92% 2015: 96% 2020: 100%

The Tasmania Together project is enshrined in law under the Tasmania Together Progress Board Act 2001, and is used to guide decision-making in government, business and the community sector. An independent statutory board, the Progress Board, monitors progress towards the achievements of the goals and benchmarks, and reports the results to the Parliament and the public. The project is set to run for 20 years.

6.2 Motivation for building a system of outcome indicators

The set of indicators used by Tasmania Together were developed in order to monitor progress on a set of goals identified by the community. In this sense, it is a bottom-up approach to policy-making, where the community first decides on its own goals and aspirations, and government, business and community groups adapt their policies to fit in with these goals.

The indicators are designed and monitored by the Tasmania Together programme rather than individual government agencies and departments, and as such there is a cost involved in maintaining the initiative that goes beyond the cost of collecting data to monitor progress. The cost of project is estimated at €680,000 per year (\$900,000 in local currency).

6.3 Selection of indicators

The original plan included 24 goals and 212 benchmarks, identified following a major consultation process involving all sectors of the community. The consultation process involved surveys of residents, mobile units that sought out views in remote communities, and online forums and talking boards. Following the identification of long-term community goals, a nine-member Progress Board is in charge of identifying appropriate benchmarks and targets to measure progress on these goals, finding appropriate data sources, and amending existing surveys or designing new ones where there are missing variables.

6.4 Compliance with established requisites

The indicators used by the Tasmania Together programme were designed specifically to comply with internationally-recognised requisites, and to be as closely linked as possible to the goals of the plan.

(a) Reasonable

The Tasmania Together plan requires that the indicators used to measure progress be the most relevant and comprehensive available, given the goals identified in the consultation process. They are also required to be trustworthy, and logically and scientifically defensible. The rationale for each indicator used in the plan is specifically stated in an official goals and benchmarks document, and reviewed every five years as part of a progress review. A great deal of thought has gone into choosing appropriate indicators, and ensuring that they are closely linked to the goals that the plan aims to achieve. A point of contention is that the indicators were developed as a precursor to policy, with policymakers expected to incorporate the goals that the indicators are linked to into their policy programmes. The link between policy and the movements in the indicators is therefore only valid as long as policy programmes follow the goals identified during the consultation process.

(b) Normative

The Tasmania Together plan requires a detailed analysis of the direction in which each indicator is expected to move from a given benchmark value, and for most indicators there is a list of targets to be achieved every five years over the 20-year life of the plan. The indicators are normative in the sense that the Progress Board has identified the direction and magnitude expected of indicator in response to positive changes towards the goals of the project.

(c) Robust

The Progress Board ensures that the indicators used are scientifically robust, and inasmuch as possible comparable to similar indicators available at the Australian level, in order to allow for comparability. The indicators are also chosen so as to be based on reliable, readily available (where possible) and timely data, so that progress on targets can be monitored over time.

(d) Responsive to policy

A major issue with the approach of this project is that the identification of the indicators is linked to the goals of the plan, rather than to specific policy initiatives. The changes highlighted by the indicators are therefore only linked to policy if policymakers explicitly follow the goals identified by the plan. Although there are required by law to formulate policy that aims to achieve these goals, the extent to which this is achieved is debatable.

In terms of the indicators themselves, the Tasmania Together Progress Board monitors the effectiveness of the benchmarks used, and in 2006, following a 5 Year Review, a major revision of the project consolidated 24 goals to 12 and reduced the number of benchmarks from 212 to 143. In November 2009 the Tasmanian Parliament endorsed a further 35 new and revised benchmarks as recommended by the Progress Board, following considerable work arising from the first five years of the community's plan. The outcome indicators used are therefore closely linked to the goals of the community and of Parliament, but not necessarily to individual policy programmes and projects.

(e) Feasible

The indicators are chosen based mostly on existing data sources, or where necessary, on revised versions of existing surveys, incorporating a few new questions to cover gaps in the data. The use of qualitative data has mostly been ruled out given the cost involved in collecting it, so whenever possible quantitative data sources are used. The Progress Board commissions a Community Survey every two years to monitor progress on a set of wider goals, including questions on quality of life, feeling part of the community, inclusiveness and acceptance of diversity, and government accountability. The sample size for this survey is fairly low, involving an achieved sample size of around 750-800.

(f) Debatable

Public monitoring of progress is a key aspect of the project, and the Progress Board is tasked with ensuring that information on the current levels and trends in the indicators is widely available to members the community. One of the criteria for choosing the indicators is that they should be simple, easy to interpret, and intuitive in the sense that it should be obvious exactly what the indicator is measuring. The indicator is also designed to be informative and stimulate interest within the community.

The Progress Board maintains a constantly updated website with information on the plan, including bi-annual progress reports with specific information on how the current level of the indicators compares to the targets. The website also publishes “snapshots of progress”, designed to be easy to read overviews of how well the goals are being achieved, and including graphs and

charts. The initiative also encourages the participation of individuals through online forums and regular debates.

6.5 Use of indicators in the evaluation and programming process

The indicators are intended to monitor long-term achievements in a set of goals identified by the community, rather than achievement in specific policy programmes. As such it is not directly linked to policy. However, the plan is enshrined in law, and policymakers are required to adapt their policies to ensure progress towards the goals expressed in the plan. The value of the outcome indicators developed by Tasmania Together is therefore in encouraging government agencies, as well as businesses and community organisations, to formulate plans that are in line with the needs and wishes of the community.

The second important contribution of the programme is in terms of transparency and accountability, since the rationale for the indicators is clear and intuitive, and their progress can be monitored on an ongoing basis by individuals, community groups and other interested parties. The data resulting from this process is also widely available, and used in media reports and policy debates.

One issue of contention with the programme was the large number of goals and associated benchmarks that were initially included in the plan. A 5-year review of the programme found that its effectiveness suffered as a result of this overreach. This led to a consolidation process, where the number of goals (and hence, of benchmarks) was significantly reduced, in order to better focus attention on the remaining goals. This experience suggests that reducing and focusing the set of outcome indicators could be beneficial to policy delivery.

There is currently some debate in Tasmania regarding the long-term funding of the plan, with some politicians arguing that the funds used on the project could be better spent directly on policy programmes. The project is designed to be politically-neutral, and to ensure continuity of progress on long-term goals beyond the electoral cycle. There is a danger that, in the context of a difficult economic climate, the plan could be abandoned in favour of shorter-term funding goals.

7. Whistler2020, Whistler (British Columbia), Canada

7.1. Overview

The Whistler2020 project is a community plan for ensuring the sustainability of Whistler and its economy into the future, with a focus on sustainable tourism. Whistler is a resort town in British Columbia, and has a permanent population of around 10,000 people, with an additional transitory seasonal population of mainly young workers. Around 2 million people visit Whistler annually for skiing and snowboarding in the winter, and mountain biking in the summer. The large visitor numbers have in recent years created a number of problems, including pressure on the existing infrastructure, an increase in living expenses that threatens to price out the local population, and increasing demand for energy. The local community is also concerned about climate change, fluctuating visiting numbers due to the cost of air travel, and their dependence on limited natural resources such as energy for resort operations.

The project was developed with the aim to address these issues, and involved a two-year period of planning, with substantial community involvement. It involves 28 official partner organisations, ranging from tourism organisations, to environmental associations, education and health institutions, arts councils and energy companies. Several strategy task forces, comprised of over 150 community organisations and individuals, meet annually to assess progress and develop action plans for each of 16 strategy areas. Progress towards achieving the goals is monitored via 90 outcome indicators. The aim of the project is to achieve sustainability by 2060.

7.2 *Motivation for building a system of outcome indicators*

The Whistler2020 project is organised around five community priorities, which were identified during an extensive programme of workshops and meetings, over a two year period. The priorities are:

- Enriching community life.
- Enhancing the resort experience.
- Ensuring economic viability.
- Protecting the environment.
- Partnering for success.

In order to develop specific policies, a number of task forces work on designing policies to improve shortcomings in 16 strategy areas, ranging from “arts, culture and heritage” to “visitor experience” and “water”. For each of these strategy areas the task forces have also identified outcome indicators that can be used to measure progress (or otherwise), based on openly discussed “descriptions of success”. These are decided on with the active involvement of the local community (RMOW, 2007).

7.3 *Selection of indicators*

The Whistler2020 project has a dedicated monitoring programme, which tracks progress on the priorities of the initiative. The system of indicators consists of core indicators, providing high-level information on the overall aims of the project; strategy indicators, providing detailed information on progress for each of the 16 strategy areas; and context indicators, which provide additional information on the resort, but are not directly linked to the project.

The monitoring programme was developed following the advice of academics and statistics experts, and through dialogue with data users, data providers and the Whistler2020 taskforces. Once the strategy areas and related “descriptions of success” were established, the next step was to identify appropriate indicators to measure progress. This was done by first researching the use of outcome indicators in other programmes and jurisdictions, and then analysing the existing data to identify gaps in coverage. The list of indicators was revised using a set of criteria to ensure transparency and accountability. The monitoring programme then proceeded to collect baseline indicator data from a variety of sources, including the Resort Municipality of Whistler (RMOW), Tourism Whistler, Statistics Canada and BC Hydro. In order to fill gaps in the coverage, two annual data gathering tools were designed: an annual Whistler community survey, and a Whistler affordability report.

As an example of this process, the following are the core indicators chosen to measure progress on the priority area “Enriching community life”:

- Percentage of permanent residents satisfied with local recreation opportunities.
- Number of unlawful incidents per 1,000 residents/visitors per year (three year average).
- Percentage of permanent residents satisfied with the local learning opportunities.
- Overall resident satisfaction (percentage who are satisfied or very satisfied).
- Percentage of the winter workforce who are permanent residents.
- Percentage of permanent residents who think their health is very good (or better).
- Percentage of permanent residents with incomes below the cost of living.

On a more detailed level, the strategy area “Arts, culture and heritage” is monitored using a separate, more specific set of indicators:

- Percentage of permanent residents satisfied with the local selection of arts, culture and heritage offerings.
- Percentage of permanent residents attending an arts, culture or heritage offering at least once a month.
- Percentage of visitors participating in an arts/cultural centre or event.

The contextual indicators are more general, and monitor demographic trends, the socio-economic composition of the resident population, the availability and composition of housing, business activity, visitor numbers and the use of natural resources such as water and energy.

7.4 Compliance with established requisites

The Whistler2020 project complies with all of the requisites discussed below, a number of which were explicitly considered when developing the indicators (completeness, materiality, timeliness, credibility and accessibility).

(a) Reasonable

The outcome indicators used have been specifically chosen to capture the effects of the policy initiatives linked to the 16 strategy areas of the project. The choice of indicators is thus intrinsically linked to the policies of the project, and these policies are revised annually in order to incorporate changes highlighted by the indicators. Moreover, the indicators were chosen by several task forces of experts and community stakeholders in each strategy area, and the choice validated through extensive community involvement.

(b) Normative

The direction in which each indicator is expected to move is explicitly defined, as are changes with respect to the baseline numbers. This information is publicly available via the Whistler2020 website, and annual progress reports highlight the extent to which the indicators have improved or deteriorated, given the expected trends.

(c) Robust

The indicators were developed with the help of experts (including academics), data users and data providers. They were then carefully considered by the monitoring programme, and their reliability and usefulness assessed, before being incorporated into the system of indicators. The external indicators are provided by reliable sources such as Statistics Canada, although some are compiled by local organisations involved in the project, such as the RMOW and the local tourism board. The two new data tools managed by the project were both developed with the advice of experts in the areas under consideration.

(d) Responsive to policy

The indicators chosen are closely linked to the “description of success” for each of the strategy areas of the project, and are constantly evaluated to ensure that they meet the required standards. In addition, the indicators have been chosen with extensive community involvement and expert advice, and come from a variety of reliable sources. This was done in part to ensure transparency and accountability.

(e) Feasible

The chosen indicators are mostly based on existing data sources as the local, regional and national levels, although two additional sets of data are collected directly by the project, an annual Whistler community survey, and a Whistler affordability report. The latter is used to construct a measure of local prices and affordability, using a Market Basket Measure (MBM) approach. The data collection burden is therefore fairly small.

(f) Debatable

The indicators used are chosen with extensive community involvement, and the data and annual progress reports are made widely available on the Whistler2020 website, and via publications and public meetings. Their usefulness is continuously monitored by the task forces, and where necessary the indicators used are amended or changed to reflect changing strategies and their usefulness in monitoring progress. This process is also open to public consultation.

7.5 Use of indicators in the evaluation and programming process

The outcome indicators are an integral part of the project, and their importance was identified from the outset. Given the consultative process through which the project was designed, the outcome indicators are used as both measures of progress in each of the strategy areas, and as a tool to ensure transparency and accountability with respect to the local community.

In terms of their use in their programming process, the task forces assigned to each strategy area use the indicators to assess progress on the objectives of the project, and also critically evaluate their usefulness, and either change the indicators, or adapt the project accordingly. Their usefulness in determining progress is also open to public consultation, and as a result, the strategies of the project are re-evaluated annually.

8. Go for Health!, Santa Cruz (California), United States

8.1. Overview

Childhood obesity is a major public health problem in the United States, where it is estimated that childhood obesity rates have more than doubled over the past decade. Obesity in turn leads to other longer-term health problems such as diabetes, stroke, heart attacks and chronic illnesses. Since childhood obesity is a complex problem with multiple causes, many of which individuals have little control over, it is best addressed at a community level.

This is the aim of Go for Health!, a five-year plan started in 2004, involving 150 agencies and stakeholders, among them policymakers, parents, schools, community-based organisations, health care providers, and local businesses. The plan covers the several of the causes of childhood obesity, and outlines the problems, desired outcomes and action steps that can be taken to address it. This includes:

- Restricting the advertising of unhealthy food and promoting the advertising of healthy food such as fruit and vegetables.
- Increased access to, and promoting the consumption of, healthy food.
- Addressing children's excessive TV viewing and use of computer games, and promoting physical activity in schools.
- Changing cultural attitudes to reduce the time spent by the family on sedentary activities.
- Reducing urban sprawl and providing the infrastructure to encourage walking and cycling.
- Making neighbourhoods safer, or improving the perception of safety, to encourage children to play outside.

The project is organised around a set of objectives, inputs, outputs, and desired outcomes, the latter of which are classified into short-, medium- and long-term outcomes. There are 24 identified outcomes in total. The data used to measure progress on these outcomes comes from the Santa Cruz County Community Assessment Project (CAP) a long-running community indicator project started in 1994, which covers six quality-of-life subject areas: the economy, education, health, public safety, the social environment and the natural environment. There are over 130 indicators in the CAP, some collected via a telephone survey of a representative sample of Santa Cruz County residents, and others created from a variety of local, state and national sources.

8.2 Motivation for building a system of outcome indicators

While the indicators are collected via a separate community-based project, the need to use indicators was identified by the collaborative committee (of 150 agencies and stakeholders) from the beginning as a necessary step to measure progress on its goals. The indicators were chosen to measure outcomes that are expected to take place as a result of the action points of the project, such as changes in knowledge, attitudes, behaviour and health. The outcomes are formulated to

address specific objectives and the targets and data to be used were identified from the outset. A steering committee meets regularly to monitor progress in the implementation of the project and its outcomes.

8.3 Selection of indicators

The indicators were chosen by the collaborative committee that set up the project, but are compiled by a separate community indicators project, the Santa Cruz County Community Assessment Project (CAP), which is in turn governed by a steering committee made up of local agencies and community organisations. The data are taken from regular surveys of local residents carried out by the CAP, and other administrative data sources such as health and education surveys, and census data. The CAP data are provided free of charge via annual reports.

The following is an example of the process through which the indicators are chosen, and their link to specific action steps formulated. Table 6 shows the five steps used to design activities to achieve the goals of the project. First, the “Arena” is the general area of interest, in this case, parenting and family relationships. The “Community Outcome Objective” is the target to be achieved, formulated in terms of the outcome indicators. In this case, the outcome indicator is the percentage of parents who have a knowledge of healthy eating and exercise habits, as measured by a biannual CAP parents survey. The “Strategy” is the overall approach to be taken to achieve the target, while the “Action Steps” are specific activities to be undertaken by the project. Finally, a review is made of “Existing Activities”, and decisions are made on how to expand them or introduce new activities to meet the outcome target.

Table 6: Process through which indicators are chosen, for the arena “Families”.

Arena	Community Outcome Objective	Strategy	Action Steps	Existing Activities
Families	By December 2010, there will be a 10% increase in the number of parents who have a knowledge of healthy eating and regular physical activity as measured by the CAP biannual parent survey.	Provide various educational opportunities for parents to learn about the benefits of healthy nutrition and regular physical activity.	<ol style="list-style-type: none"> 1. Provide culturally appropriate education workshops for parents. 2. Distribute health information on a countrywide level at a variety of venues. 	Latino 5-a-day; WIC Nutrition Education; Head Start Nutrition Education.

8.4 Compliance with established requisites

The Go for Health! plan, strategies currently being implemented and the selection of appropriate indicators comply closely with the set of requisites outlined below.

(a) Reasonable

The indicators chosen are very closely linked to the outcomes of the project, and the project in turn benefits from having access to a detailed set of community well-being indicators available,

which measure the attitudinal and cultural aspects that are important to capturing the causes of obesity. Given the relatively small region in which the policies are being implemented, it is fair to assume that changes in the indicators will be relatively closely related to the actions undertaken by the project.

(b) Normative

For each of the expected outcomes there is a clear discussion of why the chosen indicators are expected to provide a good measure of change, and the direction and magnitude of change that is expected. For each outcome, a specific target is set for each phase of the project. This link is discussed and agreed upon by the collaborative committee, composed of all the stakeholders involved in the project.

(c) Robust

The project uses data compiled by a community indicator project (CAP), which was established in 1994 by a consortium of public and private health, education, human service, and civic organizations. The attitudinal surveys run by CAP are designed using internationally-recognised practices with the help of Applied Survey Research (ASR), a not-for-profit research enterprise (Zachary, 2007; Zachary et al., 2010). They are telephone surveys based on representative samples of the population of Santa Cruz County, and a detailed account of the methodology used, including response rates, is provided on the CAP website. Other data sources include administrative data at the local, state and national levels, compiled by official statistical agencies.

(d) Responsive to policy

The indicators used to measure progress on the goals of the project are closely linked to the policies undertaken, and the policies themselves were formulated in response to the worrying trends in childhood obesity levels highlighted by CAP. In effect, the Go for Health! project arose from concern following a rise in obesity levels and related cultural and attitudinal factors identified by CAP. Moreover, since the indicators are compiled by a separate organisation, there is increased transparency and trust in the trends shown by the data.

(e) Feasible

The data burden is minimised through the use of an existing community indicators project, and the availability through that project of all the necessary administrative, attitudinal and cultural data. The cost to Go for Health! of data collection is therefore practically zero, with exception of some volunteer time to compile the table of indicators that are needed to assess progress on the goals of the project.

(f) Debatable

The data for the indicators used, and the underlying goals and targets of the Go for Health! programme, are freely available on the website of the project. All of the data for CAP, including data on other topics that might be related to the causes of childhood obesity, is also available online. Both projects are governed by committees that include the participation of different local

stakeholders, and both are based on consultative processes, whereby any member of the public can have a say on how they are run. The topics chosen by the indicator project are revised regularly based on recommendations by the public and local community organisations.

8.5 Use of indicators in the evaluation and programming process

The outcomes indicators are integral to the policy programming process, as they are both the motivation for the project, and the measures of its success. The goals of the project were to a large extent formulated in response to the trends highlighted by the indicators, and are thus closely linked to the existing data sources. Moreover, there is a mechanism for revising the indicators and including new sets of questions in the survey of local residents in response to changes in the objectives of the Go for Health! project.

9. Reducing Murder: A Community Response, Jacksonville (Florida), United States

9.1. Overview

The basis for this project is a community indicators initiative based in Jacksonville, Florida. The indicators are collected by the Jacksonville Community Council Inc. (JCCI), a not-for-profit organisation run mainly by volunteers, founded in the 1970s with the aim of improving the quality of life in Northeast Florida through the promotion of citizen engagement in decision-making. The data for the first set of indicators was collected in 1985 following a partnership between the Jacksonville Chamber of Commerce and JCCI, as a result of a lack of data on quality of life in the area, which was not available from official sources. The Chamber of Commerce provided the funding, and JCCI provided volunteers. Both organisations were keen to involve the local community in the process of selecting and developing the indicators.

Since 1985 the focus of the community indicators initiative has evolved from simply collecting data to pushing for policy action on the findings highlighted by the indicators. In addition to collecting a standard set of indicators, the initiative chooses a theme to highlight each year, such as education, employment, housing, justice and the legal system, and civic engagement. JCCI volunteers then write special reports on selected topics, identify the relevant agencies and community organisations, and encourage them to undertake projects linked to the findings on a particular topic. The Reducing Murder: A Community Response initiative started in 2006 as a result of a JCCI study on crime in Jacksonville (JCCI, 2006). The initiative covers several projects:

- (a) Operation Safe Streets, implemented by the Sheriff, is a policy to focus police resources on violent crime associated with drugs and illegal guns. It involves a better targeting of funds and personnel and other initiatives such as a policy of engagement with the local community on the issue of gun crime and drugs, to encourage co-operation with the policy. These approaches resulted in a 38% decline in the murder rate (year on year).
- (b) Jacksonville Journey, implemented by the Mayor, which involves after-school programmes, and additional funding for community policing.

(c) A “gun bounty” programme, funded by the Chamber of Commerce, to remove illegal guns from the streets, which resulted in a 200% increase in the recovery of guns (year on year).

9.2 Motivation for building a system of outcome indicators

In this case, the outcome indicators were developed first, as part of a wider project on measures of wellbeing. The specific indicators that highlighted the high rates of drug and gun-related crime, and their causes, were identified by a not-for-profit project, the volunteers of which encouraged policymakers and other organisations to respond with appropriate policy initiatives. In this sense, the indicators existed before the project was developed.

However, the indicators are also integral to the success of the project, in that they provide the means to measure progress, and help to keep the focus on the wider causes of gun crime, such as a culture of violence and a lack of after-school opportunities. The positive results of the project in turn provide support for the indicator project, and help it to identify future opportunities for collaborative work with government agencies.

9.3 Selection of indicators

The indicators were chosen by the not-for-profit organisation JCCI, which runs the Jacksonville Quality of Life community indicators project. JCCI is governed by a volunteer board of directors and supported by a Council of Stewards, the members of which provide technical expertise on the different topics covered by the indicators. The indicators used by the Reducing Murder: A Community Response project were in the first instance selected by JCCI to provide data for a special report on crime, and were later adopted by the initiative to tackle crime. In this sense they preceded, rather than followed, the design of the policy initiative. However, there is a two-way process involved in the development of the indicators, with the project using the indicators developed by JCCI, and in turn suggesting improvements for future use.

9.4 Compliance with established requisites

The outcome indicators used in this project comply with all of the requisites below, although, as mentioned above, the indicators were developed prior to the project, and the project subsequently used them to evaluate the outcomes.

(a) Reasonable

The indicators capture gun crime (violent crimes and murders per 100,000 residents) and associated causes and effects such as domestic violence (number of incidents per 100,000 residents), racism, alienation and mistrust (resident perceptions of racism, racial profiling, and lack of fair treatment), lack of economic security (unemployment rates and perceptions of job opportunities), lack of male role models (percentage of households where the father is absent), felony sentencing (percentage of felony convictions), a culture of violence (resident perceptions regarding violence as a suitable response) and hopelessness (perceptions of children regarding their expectations for the future). These indicators were originally chosen to provide an overview of the nature of crime in Jacksonville, but also suggested possible causes of action to address the causes of crime. The policy project that followed aimed to address these issues, and in turn used

the indicators to measure progress following policy interventions. The indicators are thus very closely linked to the policy initiative, and their link to the policy interventions that were implemented is therefore explicitly acknowledged.

(b) Normative

Since the indicators were identified before the policy initiative was implemented, the link between the policies and the respective indicators was established from the outset. The recommendations that resulted in the policy initiative also explicitly identified the direction in which the indicators would be expected to move should the policies be successful in reducing gun crime in Jacksonville. There is therefore a clear understanding of the direction in which the indicators are expected to change to reflect a successful result.

(c) Robust

The community indicator project run by JCCI is one of the best known, and oldest, community indicator projects in the world, and as such it is very well respected. The methodologies used to develop the indicators are of internationally recognised standards, and the volunteers working for JCCI are advised by a panel of experts in each field covered by the indicator project.

(d) Responsive to policy

As discussed above, the development of the indicators preceded their use to evaluate the policy initiative, but the policies used were directly linked to the results of the indicators. Moreover, the indicators are intrinsically linked to the outcomes of the policies, and are used to measure the success or otherwise of the policies implemented. Since the indicators are provided by a separate not-for-profit organisation they are considered very trustworthy, adding transparency to the process.

(e) Feasible

The indicators are collected as part of a wider community indicators project, so the costs to the policy initiative are minimal. Moreover, the indicators project benefits from the publicity resulting from the policy initiative, and are keen to amend or reformulate the indicators in the future, should the need arise.

(f) Debatable

The outcome indicators used are freely available to the public via the JCCI website, and the latter are also keen to publicise their involvement in the Reducing Murder: A Community Response initiative. As a result, JCCI have given prominence to the results of the policy initiative on their website, and encouraged debate on the topic of gun crime in Jacksonville. The policy initiative is somewhat fragmented as it is run by three separate government agencies, so the details of the policies implemented are harder to come by, and, with the exception of the Operation Safe Streets, are less subject to public debate. However, the local media has regularly reported on the progress of the policy initiative, and highlighted the link to the community indicators project.

9.5 Use of indicators in the evaluation and programming process

The outcome indicators used are intrinsically linked to the programming process, in that they both provided the motivation for the policy initiatives implemented, and are used to monitor their progress. As discussed above, the organisation that provides the indicators is keen to encourage their use, and has worked closely with the government agencies implementing the policies in order to further develop and refine the indicators for future use. The government agencies are in turn keen to publicise their source as the indicators project is transparent and highly respected, and also highlight the changes in the indicators that have been observed since the project began, as they show that much has been achieved in a relatively short period of time. Moreover, the indicators themselves are freely available on the JCCI website and open to scrutiny, while the media have regularly reported on the trends shown by the indicators, and the policy initiatives developed in response.

10. Sustainable Juruti, Pará State, Brazil

10.1. Overview

Sustainable Juruti is a local development initiative currently being developed by Alcoa, a mining company that has recently established a large-scale bauxite extraction site in Juruti, on the banks of the Amazon River. In the past the area has experienced sharp economic cycles, with the extraction of rosewood and jute not resulting in lasting development. Other activities such as agriculture, livestock farming and small-scale commerce are mainly practiced for subsistence purposes or to supply the local market. The Alcoa bauxite mining project was granted a preliminary license in 2005, and construction activities started in June 2006. It is expected that the mining operation will build a port on the Amazon River and a railway line connecting the mine to the port.

The initiative involves three components:

(a) Sustainable Juruti Council (CONJUS)

The first component is the CONJUS forum, bringing together local community members and other stakeholders in order to design a model of sustainable development for the area. The intention is to involve all interested parties in the development process, and in particular, in formulating long-term strategies for the municipality.

(b) Sustainable development indicators

The second component is a set of outcome indicators used to monitor progress on the goals and strategies formulated by the council. The indicators cover social, environmental and economic aspects of regional development, and it is envisaged that they will be adapted over time to comply with new development strategies. The indicators are also expected to promote dialogue and strengthen civil society in the area. The system of indicators is being developed with the help of the Centre for Sustainability Studies (GVces) of the Getulio Vargas Foundation (FGV), a highly-respected Brazilian higher education institution.

The pilot indicator programme is organised into 3 broad sections, covering 28 topics, 78 indicators and 158 metrics. The first section, Environment, includes measures of the dynamics of land occupation, mineral resources, water, air and climate, fauna, flora, environmental services, fish and fishing, agriculture and livestock. The second section, Humans and Society, covers population, education, health, social vulnerability, security, culture, sport and leisure, labour, employment and income, social participation and socio-environmental conflicts. The third section, Economy and Infrastructure, addresses the local economy, public finances, energy, sewage, refuse collection, housing, transport, communication, private investment and financial services.

For each of these topics, the indicators chosen include a range of measures based on local and national data sets, including sources such as the population census. As an illustration, the indicators associated with the topic “water”, and related metrics, are:

- *Water quality at points monitored by Alcoa*: water quality on a five-point scale; whether the water is safe to use for a range of different purposes, e.g., drinking, cooking, washing.
- *Access to treated water*: percentage of urban population served by treated water; number and type of urban water connections.
- *Perception on access to water in rural communities*: number of rural communities reporting access to water.
- *Inspection of the quality and use of water*: number of points inspected by the government inspection agency.

(c) *Sustainable Juruti Fund (FUNJUS)*

A fund managed with the help of FUNBIO, the Brazilian Biodiversity Fund, to support priority projects in the area, evaluate the results using the sustainable development indicators, based on the priorities identified by the council. An initial 2-year pilot phase started in May 2009 with €830,000 (equivalent to R\$2 million in local currency) in funds from Alcoa. It is expected that there will be ongoing funding from Alcoa, and additional funds will also be raised from other donors.

10.2 Motivation for building a system of outcome indicators

The sustainable development programme currently being implemented in Juruti was partly a requirement of the license for the mining operation, and partly a voluntary initiative by Alcoa to change the way it interacts with local communities in areas where it operates. The company contacted the Centre for Sustainability Studies (GVces) of the Getulio Vargas Foundation (FGV), a Brazilian higher education institution, and FUNBIO, the Brazilian Biodiversity Fund, for help in developing and implementing its strategy.

The indicators themselves are being developed by academics from the FGV, in conjunction with CONJUS, the Sustainable Juruti Council made up of local community representatives and stakeholders.

10.3 Selection of indicators

The process of choosing and reviewing the outcome indicators to be used is ongoing and involves local community stakeholders and academics from the FGV. The process of identifying an appropriate set of indicators began with a review of development indicators used by other sustainable development initiatives. It proceeded by collecting information on the situation in Juruti before the arrival of Alcoa, to build a baseline for comparison purposes. There followed a series of public meetings and workshops to choose a set of indicators that are of relevance to the local community. A set of 90 indicators covering social, economic, infrastructure and environmental issues was chosen, to be further developed during the pilot phase of the programme, with continuous input from the local community via public meetings. The process took two years of work, involved the input of more than 500 representatives of local and regional institutions through a series of surveys, workshops and meetings. It resulted in the construction of the indicators and data collection, in addition to extensive bibliographical and field research to define the area to be monitored (FGV, 2009).

10.4 Compliance with established requisites

Although the programme has only just begun, and is still in its pilot phase, the strategies being implemented comply closely with the set of requisites outlined below.

(a) Reasonable

The indicators are designed to measure progress in terms of sustainable development in Juruti and its surrounding areas, rather than progress due to a specific project. In this context, the indicators are reasonable, in that they aim to address aspects of economic development of the area, environmental and social aspects of sustainability. The indicators cover aspects such as land use, degree of deforestation, water quality, use of different fishing techniques, school enrolment, infant nutrition and immunisation.

(b) Normative

The direction in which the indicators are expected to move and the relationship with the programme aims of sustainable development are clearly identified, and agreed upon by local stakeholders. As it stands the programme uses no targets to measure progress, but this might change in the future as it moves beyond its pilot stage.

(c) Robust

The set of indicators chosen all conform to international best practice in the measurement of the outcomes of development projects, and have been carefully developed with the help of academics of the FGV. The current state of the indicators has been discussed in detail and presented using diagrams and graphs. The data sources identified all conform to international standards, and where the data is lacking or insufficiently reliable, there are plans to develop survey instruments, or improve existing data collection initiatives.

(d) Responsive to policy

The indicators are an integral part of the Alcoa mining operation and associated development programme, and it is expected that changes in the indicators will feed through to policy via the funding of projects that address areas of concern, or changes in long-term development strategies for the region. The involvement of several well-respected organisations in the development of the programme, together with the formation of the CONJUS council of local stakeholders, ensures that the transparency and accountability of the process.

(e) Feasible

The majority of indicators to be used in the programme are constructed using existing data sources, mostly longitudinal, for which past observations are available in order to construct a baseline. In a few instances the additional data will be collected via locally-organised surveys, although, given the involvement of FUNBIO, these surveys may serve as pilots to be rolled out in other areas of the country.

(f) Debatable

The indicators are being developed with the involvement of the local community, and the consultation process that preceded the choice of the initial set of indicators involved numerous surveys, meetings and workshops with local stakeholders. The local community is also involved in the strategic direction of the programme via the CONJUS council, and will have a say on the future development of the indicators used to evaluate the programme. It is also expected that regular progress reports will be made available to academics and international development experts.

10.5 Use of indicators in the evaluation and programming process

Although the programme is still in its early stages, it is expected that the indicators will form a key part of the strategic planning and future development of the projects associated with the initiative. The indicators are one of three pillars identified by Alcoa and its partners at the start of the process, the other two being a council of local stakeholders, and a sustainable development fund. The consultative process already undertaken to identify the initial set of indicators involved a wide range of local community stakeholders, academics and policy-makers, and this approach is expected to continue into the future.

References

Ecotec (2009). *URBAN II Evaluation. Case Study Report – Aarhus, Denmark*. Ecotec, Birmingham.

FGV (2009). *Indicators of Juruti: Where the development of the municipality is headed*. Getulio Vargas Foundation, Botafogo, Brazil.

FGV, Alcoa, FUNBIO (2006). *Sustainable Juruti: A proposed model for local development*. Getulio Vargas Foundation, Botafogo, Brazil.

JCCI (2006). *Reducing murder: A community response. A strategy report to the citizens of Jacksonville*. Jacksonville Community Council Inc. (JCCI).

Metis (2009). *Mini-Case Study: Guadalinfo, Spain. Ex post evaluation of Cohesion policy programmes 2000-2006 co-financed by the European Fund for Regional Development (Objective 1 and 2)*. Metis, Brussels.

RMOW (2007). *Whistler2020: Moving Toward a Sustainable Future. Resort Municipality of Whistler*.

SWRDA (2009). *Evaluation of the Eden Project and SWRDA's Role. Final Report*. South West Regional Development Agency (SWRDA), Exeter.

Tasmania Together (2001). *Tasmania Together: Goals and Benchmarks in Detail*. Tasmania Together Progress Board, Hobart, Australia.

Tasmania Together (2006). *Tasmania Together 2020*. Tasmania Together Progress Board, Hobart Hobart, Australia.

Tasmania Together (2009). *Tasmania Together Revised*. Tasmania Together Progress Board, Hobart Hobart, Australia.

Tasmania Together (2010). *Progress Report*. Tasmania Together Progress Board, Hobart Hobart, Australia.

Zachary (2007). *Connecting outcomes to indicators: The Santa Cruz County California community assessment project (CAP). Community Quality-of-Life Indicators: Best Cases III, 1-20*.

Zachary, Brutschy, West, Keenan and Stevens (2010). *Connecting data to action: How the Santa Cruz County Community Assessment Project contributes to better outcomes for youth. Applied Research Quality Life 5, pp. 287-308*.