

## **Implementation of the DIT-ACHIEV Model for Sustainable Tourism Destination Management: Killarney, Ireland, A Case Study**

*Maeve Morrissey, Kevin Griffin and Sheila Flanagan*

### **Abstract**

The DIT-ACHIEV Model is a model of sustainable tourism indicators developed in a previous research project undertaken by the School of Hospitality Management and Tourism, Dublin Institute of Technology. The indicators represent six fields of interest – Administration, Community, Heritage, Infrastructure, Enterprise and Visitor (Flanagan et al, 2007). This current research addresses the implementation of the DIT- ACHIEV model in an Irish tourism destination, with the objective to assess whether it can be implemented by the local community in any tourism destination.

The methodology used to implement the model is based on recommendations by Goodey (1995) and Denman (2006). Goodey suggests that a local network of interested parties is required to achieve sustainable tourism (1995). Denman proposes that a multi-interest working group should be created and wide public consultation is necessary for sustainable tourism. The model is being piloted in Killarney and Carlingford, Ireland; the two destinations were selected via a competitive tender process. This paper will discuss the challenges encountered following the methodology in Killarney.

There were numerous public consultations to ensure community participation, which identified sustainable tourism issues. Subsequently, a situational analysis was performed using pre-existing datasets where possible; this revealed data gaps regarding visitor and resident perceptions. Consequently visitor and resident surveys were developed to capture this information. The visitor survey methodology is working well. However the numbers of residents completing the resident survey were initially very low.

The main difficulty in implementing the model has been engaging the public. Conversely, the community involvement in the visitor surveys is one of the most positive outcomes. The lessons learnt from the Killarney experience will be used in the second destination with the aim of developing a best practice toolkit for the implementation of sustainable tourism.

## **Introduction**

### ***Project Background***

‘ACHIEVing Sustainable Tourism Management – Putting the DIT-ACHIEV Model into Practice’ is a project undertaken by the School of Hospitality Management and Tourism, Dublin Institute of Technology jointly funded by the Irish Environmental Protection Agency (EPA) and Fáilte Ireland (the National Tourism Development Authority of the Republic of Ireland) under the Irish National Development Plan’s Science, Technology, Research & Innovation for the Environment (STRIVE) Programme 2007 – 2013.

The aim of the project is to pilot the DIT-ACHIEV Model of Sustainable Tourism Indicators developed in a previous research project entitled ‘Sustainable Tourism Development: toward the mitigation of tourism destination impacts’, which was also funded by the EPA, through the Environmental RTDI Programme 2000-2006<sup>1</sup>.

The objective of the current project is to assess whether the ACHIEV model of sustainable indicators can be universally implemented by the local community in any tourism destination using methodologies based on those recommended by Goodey (1995) and Denman (2006). Goodey suggests that sustainable tourism can only be achieved if there is a good local network of interested parties (1995), while Denman recommends developing a multi-interested network and the inclusion of the local community via stakeholder consultation (2006).

### ***Project Rationale***

A major challenge to achieving sustainable development in Ireland has been the unprecedented growth in the tourism industry since 1985, whereby there were 7.4 million tourist visits to Ireland in 2008 (Fáilte Ireland, 2009). This has put pressure on physical infrastructure and risks placing severe stress on the quality of the environment in the more popular tourist sites. According to the EPA (2000) this requires existing and new developments for tourist-use to incorporate adequate protection measures to enhance the quality of the existing environment and to mitigate tourism destination impacts.

More recently, the fourth *State of the Environment* report by the EPA, calls for the impact of tourism to be closely monitored, due to its direct and indirect impacts on the environment (EPA, 2008). It recognises tourism as an important source of investment and employment in Ireland,

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<sup>1</sup> See Flanagan et al (2007)  
[http://www.epa.ie/downloads/pubs/research/econ/ERTDI%20Report%2080\\_Web1.pdf](http://www.epa.ie/downloads/pubs/research/econ/ERTDI%20Report%2080_Web1.pdf)

particularly in rural regions. Furthermore, it acknowledges how tourism interacts closely with other policy areas - transport, energy, environment, regional planning, business and trade - and the need therefore to coordinate and integrate policies.

The National Development Plan (NDP) 2007-2013 acknowledges the importance of Irish tourism as an indigenous growth industry with high employment potential. In 2006, revenue from the industry had risen to €5.9 billion, paralleled by a 9% increase in overseas visitors. This was the fifth consecutive year of growth in terms of total visitors and earnings. Although tourism revenue has dipped in recent years, in 2008 it still equated to €6.3 billion (Fáilte Ireland, 2009).

While increased tourism numbers may adversely affect biodiversity and the environment in general, this very same biodiversity and environment are important assets for tourism. Firstly, development must not deplete the resource base. This is particularly crucial in Ireland because international tourism depends on our 'green image'. Secondly, economic growth must find a balance and harmony with environmental protection. This involves using resources more efficiently, and with less impact on the environment. In addition, Ireland is known as the land of 'many welcomes' it is therefore also important that tourism numbers do not lead to tourism fatigue in the local residents. Subsequently, any networks developed to manage tourism impacts must contain elements to represent the environment, economy and the local community.

In modelling tourism, it has been suggested that impacts of tourism can be depicted as a 'web' or network of elements split between quantifiable dimensions and qualitative perspectives. In this context Theobald (1998) comments that there is a need to limit and control tourism, which may threaten sustained use of these limited quantifiable and qualitative resources. In order to determine where actions need to be taken a thorough audit of tourism impacts is required to determine the current status.

The key difficulty remains one of incorporating value judgements of capacity attributes into the decision making process of several interconnected tourism organisations. In addition, achieving sustainable tourism is a continuous process and it requires constant monitoring of impacts, introducing the necessary preventive and/or corrective measures whenever necessary (WTO, 2004). Consequently there is a vital need to develop community partnerships or cooperatives to achieve this target of sustainable tourism. The original research, upon which this project is based, addressed these issues and demonstrated that organisations can respond to changes in tourism and mitigate negative tourism impacts, thereby leading the industry in the direction of sustainable tourism.

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### ***Sustainable Tourism Indicators***

The World Tourism Organisation (2004) defines indicators as

‘measures of the existence or severity of current issues, signals of upcoming situations or problems, measures of risk and potential need for action, and means to identify the results of our actions’.

Thus, it would appear that indicators could be useful for the intelligent and efficient management of tourism. In order to evaluate the plethora of possible indicators, the EU MEANS methodology (European Commission, 1999) into evaluating socio-economic programmes, was found to be useful for selecting and evaluating indicators. According to this programme approach there are eight criteria which must be considered in the identification of valid indicators:

- **Relevance:** The indicator should cover themes and issues which have a significant impact on the development of sustainable tourism;
- **Availability:** Crucial for an indicator is its actual existence, i.e. it must be quantified at regular intervals and the cost of collecting measurements should not outweigh the usefulness of the indicator;
- **Meaning:** A good indicator must be clearly defined and understood without ambiguity by everyone who uses it. The indicator should accurately reflect the concept to be measured, i.e. what is called the validity of construction;
- **Freshness:** The relevant information should be reasonably regularly available and it should be available at the time it is required;
- **Sensitivity:** The quantity in question should be directly responsive to the activity whose performance is being measured, and ideally changes in the quantity should be directly attributable to the activity in question;
- **Reliability:** The same measure undertaken by two different people should produce the same indicator;
- **Comparability:** Ideally an indicator would allow for comparison across a range of different areas, particularly when used for resource and location decisions;
- **Normativity:** Any value given to an indicator should be comparable to a norm, i.e. it should be amenable to setting of benchmarks against which outcomes can be compared.
- A valid and reliable indicator should fulfil as many of these criteria as possible.

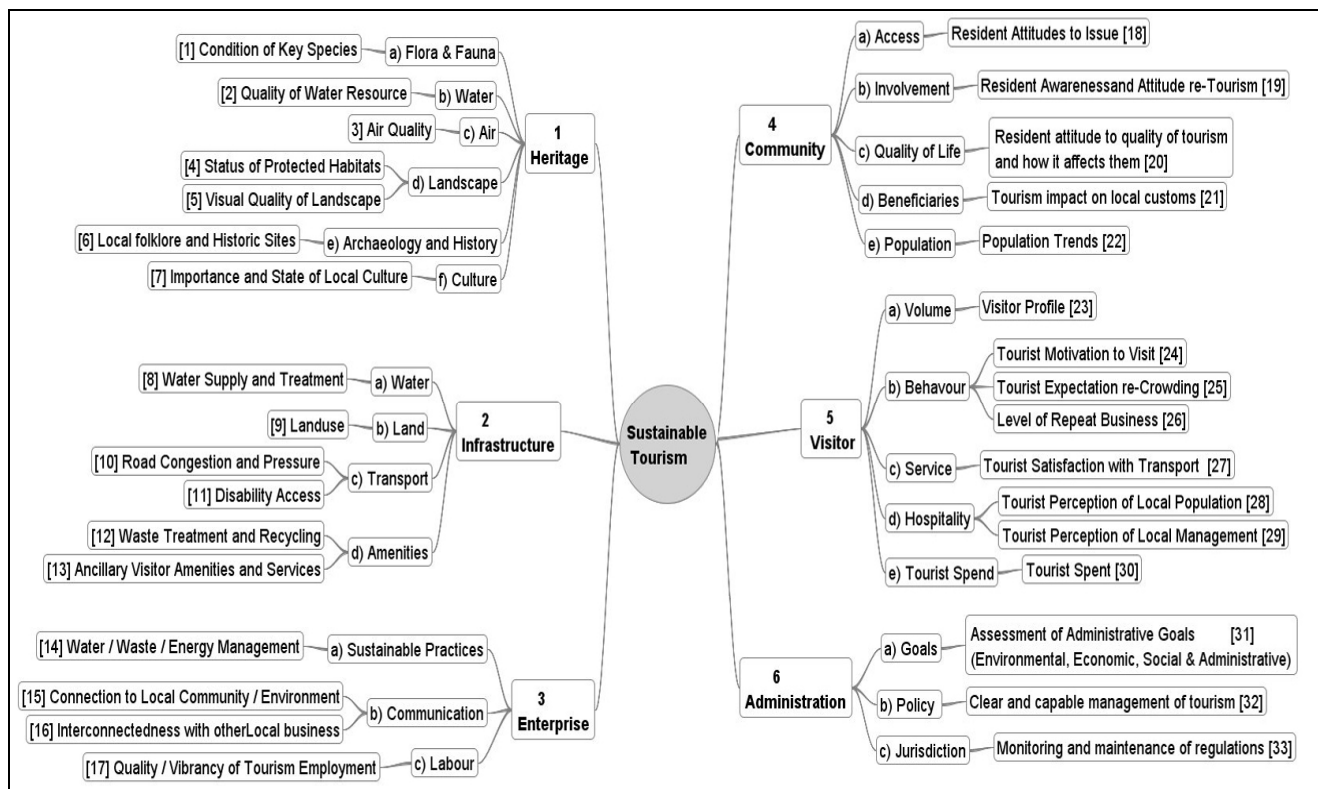
The key feature that differentiates indicators from raw data is their capacity to carry a meaning which exceeds their pure quantitative value. For example Rechatin *et al* (1997), highlight that a temperature of 39°C does not just indicate the temperature of the body of a person but also the fact that they are ill. Indicators may be either quantitative in nature or qualitative measurements.

**Methodology**

**Introduction to the DIT- ACHIEV Model of Sustainable Tourism Indicators**

Developed from the principles outlined in the above discussion, the **DIT-ACHIEV<sup>2</sup> Model of Sustainable Tourism Indicators** (See Figure 1) is divided into 6 Fields of Interest. These each contain between 3 and 6 Sub Fields, which are sub-divided into between 1 and 3 Indicators. There are 33 Indicators in total. Each indicator was extensively examined and evaluated using various methodologies, so that the final selection represents a robust range of measures which can be universally applied to any Irish tourism destination.

Figure 1 DIT- ACHIEV Model of Sustainable Tourism Indicators



<sup>2</sup> ACHIEV stands for Administration, Community, Heritage, Infrastructure, Enterprise and Visitor – the six ‘Fields of Interest’ presented in the model.

It is proposed that the resultant indicators provide a transparent method for testing the level to which sustainability is being tackled in a target area. The broad reaching range of indicators identify clear and capable management of tourism, and also consider issues such as integrated planning, monitoring, evaluation and measuring of performance. Implementation of the Model however, cannot be undertaken without intimate knowledge of the study area, thus the importance of local organisations is paramount in site selection and other aspects of the model. In particular the explicit inclusion of local organisations under the 'Community' and 'Administration' Fields of Interest illustrates the crucial role the collective community plays in the quest for sustainable tourism. In order to explore this concept of community involvement, the next sections focus on how the DIT –ACHIEV Model has been operationalised in two real settings. It presents some challenges and issues which have arisen and the difficulties of implementing measures such as Local Agenda 21 in a real-life practical situation.

### ***Implementing the Model***

The destinations in which the model was piloted were chosen following a competitive public tender process. The criteria for selection of a destination were based on:

- Identified challenges regarding future sustainability of the existing tourism product.
- Clearly delineated tourism area with defined sites of tourism interest.
- Tourism management organisation willing to partner the researchers, in undertaking the project.
- Tourism management and organisational capacity.
- Identified team commitment from the destination for a three-year project.
- Clear evidenced of community representation and participation.
- Traditionally strong tourism offering.
- Identifiable knowledge of Fields of Interest; and recognition of location specific sustainability issues.
- Level of commitment to this project and evidence of past achievement(s) in similar fields.

The two Irish destinations chosen to pilot the model based on these criteria were Killarney, in County Kerry, and Carlingford, in County Louth. This paper focuses on the experience in Killarney where the project has been underway for just over a year<sup>3</sup>.

Implementation of the model follows the key stages suggested by Denman (2006) in *'Making Tourism More Sustainable'*, where he proposes the following process for the formulation of a sustainable tourism strategy:

1. Create a multi-interest working group
2. Agree on initial issues to investigate
3. Undertake wide consultation
4. Prepare a situation analysis, including destination performance, needs and opportunities
5. Consult and agree on key issues and priorities
6. Determine strategic objectives
7. Develop an action programme
8. Establish or strengthen instruments to facilitate implementation
9. Implement actions
10. Monitor results

It has been found that there are two key issues / challenges in following this methodology. First, governance of the process is vital - it is crucial to establish / connect with the correct structures through which organisations can work with others towards more sustainable tourism, and thereby develop and drive policies and actions. Secondly, a process must be employed which embraces sustainability in its broadest sense, and thus, identifies the strategic choices that need to be made.

## **Findings: The Killarney Experience**

### ***Multi-Interest Working Group***

Initially the community partnership in Killarney, which applied to take part in this research, consisted of four local partners:

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<sup>3</sup> At writing of this paper, the process had only begun in Carlingford and in this instance the learnings from Killarney will be refined, so that by the end of the project a toolbox for implementation of the model will be developed.

- The Killarney Chamber of Tourism and Commerce,
- Killarney National Park,
- Killarney Town Council, and
- The Trustees of Muckross House.

At a very early stage it was decided that the fifth organisation of central importance to the project was:

- Kerry County Council.

The existence of this group and its application to become involved in the research project, successfully and efficiently fulfilled the first stage of Denman's methodology.

### ***Initial Issues***

Denman's second stage proposes the identification of initial issues. The listing of key concerns as a constituent element of the tendering process was an integral strength of the Killarney application. 'Team Killarney' had identified a number of issues which they believed the DIT-ACHIEV Model would assist in managing – these were:

- Absence of reliable "Tourism Industry Intelligence".
- Preservation & Enhancement of Natural Environment.
- Preservation & Enhancement of Built Heritage.
- Water Quality Issues.
- Litter & Waste Management.
- Traffic Management.
- Additional Day Visitors equal to resident population.

### ***Wide Consultation***

As this was the first field-testing of this model and methodology, it was decided that a highly rigorous approach would be adopted to validate the range and depth of indicators. Thus, while a sufficiently clear view of issues emerged at a relatively early stage of the consultation process;



numerous follow-up approaches were taken to test the model in an intensive and challenging manner, thus, going way beyond the suggestions of Denman.

Local networks were used in the consultation process to inform the community of the sustainable tourism project and encourage their participation. Invited groups included the Tidy Towns Committee, the local Red Deer Society, the Irish Hospitality Institute, and the Vintners Association etc. The consultation process began at the launch of the project in Killarney in early 2009, where attendees were invited to make submissions on the range of issues to investigate.

A focus group / meeting with key informants was arranged between the DIT research team and Kerry County Council soon after the inception meeting to consult with them on the project and receive submissions. Several members of the Council were present at this meeting and they each provided comments on sustainable tourism issues in Killarney and the surrounding area. This was followed by a dedicated public consultation meeting, which was advertised by local partners on local radio and in regional press. In total 256 organisations were individually invited. Fifty people arrived for the public consultation, of these 19 were appointed representatives of organizations, the remainder being interested individuals. Overall there was a very active discussion. Further submissions were made at that time by speakers on the 'Saturday Supplement' - a very popular programme on Radio Kerry the local radio station. The speakers were representatives of the local area and national organisations, as chosen by the show's presenter in conjunction with local partners.

To facilitate even more public participation an additional consultation was arranged. On this occasion, e-mails were sent using the Killarney Chamber of Tourism and Commerce database, Fáilte Ireland's database of tourism product providers in Killarney as well as direct contact with members of national organisations e.g. Irish Hotel Federation, Vintners Association and the Tourism Learning Networks. Two reminder emails were also sent and in some instances phone calls were made to ensure the email was received and the person was aware of the meeting. While the final attendance was only in the region of 10% of those contacted, it was felt that this indicated that a relatively complete level of participation had been achieved throughout the previous methods of communication.

From the beginning of the project, numerous articles about the project have appeared in local press e.g. Kerryman Newspaper, Killarney Advertiser, and Killarney Outlook. Many of these provided contact details in another attempt to facilitate consultation. The consultation process finally ceased in June as no new issues were emerging and overall the team were satisfied that the robustness of the DIT-ACHIEV Model had been reinforced by the submissions received.

The lessons learned from this consultation process are:

- Advertising of the consultation process must be undertaken several times in numerous media leading up to the event(s).
- Consultation meetings must take place at different times of the day to facilitate various job/life commitments.
- Targeting specific groups for follow-up e.g. follow-up emails and phone calls (Phone calls seemed to be the most effective method of ensuring attendance) can be highly successful.

### ***Community Involvement in Situational Analysis***

The next phase of the project (which is currently under way in Killarney) is the preparation of a situational analysis. In many instances, the Model's indicators utilize existing datasets – and this situational analysis is a straightforward and efficient process, once the appropriate data is assembled<sup>4</sup>. Examples of such indicators include 'water quality' for which data are widely collected and in the public domain. However, in other instances, in order to set a benchmark and evaluate the current 'situation', primary research is required. The collection of much of this data in Killarney is an exemplar of how important it is to foster community involvement in sustainable tourism development.

### ***Visitor Surveys***

During the development of the original model, a visitor survey was developed to collect data on visitor attitudes and perceptions. A similar information gap regarding visitors existed in Killarney i.e. there were no recent visitor intelligence for the general destination and recent information for Muckross House and Killarney National Park could not be extrapolated to provide insights on the general visitor perception of Killarney. Consequently, the original visitor survey developed to populate indicator data in the DIT-ACHIEV model was adapted.

To facilitate a regular supply of visitors with sufficient time and comfort to complete a survey, interviewing is firstly conducted at accommodation locations. The range of accommodation

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<sup>4</sup> The complex involvement of multiple agencies in the collection of the various data to populate the indicators has raised many issues regarding governance and data management. However, to streamline the applicability of the model, where possible, ease of access to datasets has been a key influence on the adoption of particular indicators.

provision in Killarney was audited and the surveys are being conducted in premises that provide representation across the sector e.g. from hostels to 5\* hotels. In addition, non-commercial visitor attractions are also used to capture day visitors to the area and to prevent endorsing any particular commercial visitor attraction. It was decided that volunteer researchers in each location would collect 2 surveys a week for one year as part of the pilot project. This spread of interviewing would ensure a statistically relevant number of surveys were collected, and ensure that no volunteer surveyor is under pressure to reach an excessive quota. Postcards are given to each survey respondent as a token of gratitude for participating in the project and as a method to advertise both the project and Killarney.

The visitor survey locations were identified by the local partners and agreement to conduct the surveys was obtained. The selected accommodation providers were chosen to be representative of a particular class of product and because of their willingness to participate in an annual survey on a voluntary basis. The chosen visitor attractions were deemed to be the most frequented sites in the area. As part of this process, training was provided by the Dublin Institute of Technology for those conducting the surveys. The surveyors were issued with confidentiality forms, guidance documents and show cards to assist with the survey collection. They were also given the project coordinator's contact details in case any issues arose. In addition, the project coordinator contacts the surveyors each month as a quality assurance methodology, to provide motivation and to ensure surveys are being completed on a regular basis.

The Tourist Information Office (TIO) was chosen as the central drop off point for surveys which are then posted to the project coordinator at the end of each month. The TIO also contacts the surveyors to remind them to return the surveys and thus, acts as a local contact point – thereby empowering the community structures. As a token of appreciation for their support to the project it was agreed that the surveyors would be given access to the survey results and will also be acknowledged in the final report. At the outset, the survey was piloted for a month in August 2009 and following analysis of the results of this pilot, the survey was updated.

This visitor survey methodology is currently working well; however, due to the existing economic climate, and resultant decline in tourism volumes, there are far fewer visitors in the winter months. As a result some accommodation providers and attractions have been unable to complete the survey requirements during this time. Remedial action will be taken during the summer months to rectify the reduced number of completed surveys during this period.

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### ***Residents' Survey***

According to the 2006 Census of Population for Killarney, there are 14,086 persons living in the study area, in approximately 4000 households. Therefore, circa 400 responses are required to the residents' survey for it to be statistically significant. In order to embrace modern technologies, to protect confidentiality and also to encourage anonymity and thus, honest answers a self-completed online survey was chosen as the methodology instead of a face-face or postal survey. This was considered to be cost efficient, enables respondents to complete the survey in their own time, as well as promoting modern technology and reducing the amount of paper used. In addition, the use of an online survey was seen to be an innovative and exciting way to reach out to the community of Killarney.

To encourage collaboration with the local community the survey was promoted in the following ways:

- Weekly articles in the local newspaper – the Killarney Advertiser,
- Local radio shows - Frank Lewis on the Saturday Supplement of Radio Kerry,
- Community Notice on Radio Kerry 3 times a day for 3 days,
- Distribution of circa 800 flyers to secondary school students to inform both those over 18 and all parents, of the survey,
- Parish newsletters on the Sunday before Christmas,
- A coffee morning held by one of the visitor survey collectors,
- Link on the Killarney Facebook page,
- Distribution of paper copies at resident association meetings,
- Distribution of a link for the survey to all those who attended the public consultation meetings and provided contact details,
- Survey link emailed to all employees of the town council, and
- Articles written by the local partners in the local newspapers.

Paper versions of the survey were made available to residents who preferred to complete the survey in hard copy. These were distributed by Killarney Public Library, the Tourist Information Office, Hussey's Bar and the Granary Bar. Killarney Public Library also reserved a computer terminal for residents without a home computer, to complete the survey. For ethical reasons, and to encourage validity of findings, the survey was aimed at adults. An incentive was offered to

encourage participation in the survey. The online survey started in November 2009 to allow sufficient time for residents to reflect on the previous tourist season. It was conducted over a period of six weeks to facilitate enough time for people to complete the survey and so as not to impinge on the Christmas holidays. However, due to poor completion rates this was extended until the end of February 2010.

The numbers completing the survey were very low, despite the long timeframe, the use of multiple communication channels and the added incentive of a family VIP day in Killarney for one participant. This outcome of the research, despite the multitude of efforts to increase participation, suggests that in this instance, online tools were not an efficient method for conducting resident surveys. As a result, the residents' survey in Carlingford will be operationalised in a different manner – possibly completed as a face-to-face questionnaire using volunteer researchers. Whatever approach is taken, the cost of surveying and the maintenance of quality results are paramount to the developed methodology.

## **Conclusions**

As outlined above, to date, the main difficulty in implementing sustainable tourism in Killarney has been engaging the public in accordance with Local Agenda 21<sup>5</sup> and the belief that sustainable development will be most successful if initiated at the local level. The process of public consultation required numerous public meetings, emails and phone calls over several weeks. It was considered in this instance that sufficient members of the public had provided submissions. Great difficulties were then encountered in reaching the target of 400 completed resident surveys. This phase of the work was originally scheduled to run for 6 weeks, but had to be extended for an additional eight weeks to try and attain the necessary numbers. However, the involvement of the community of stakeholders in the collection of the visitor surveys is proving to be one of the most positive outcomes of the process.

Thus, there seems to be a paradox regarding sustainable tourism and the general public. The low numbers attending the public consultations and the difficulty of encouraging locals to participate in the residents' survey could be construed as apathy towards sustainable tourism in Killarney. However, those who did attend the public consultations were very enthusiastic regarding sustainable tourism and actively participated in the process. Similarly the majority of residents who completed the survey have provided detailed comments indicating a reflective process of

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<sup>5</sup> Arising from the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, 1992

involvement, and a desire to participate in the implementation of sustainable tourism management in Killarney.

The fact that the visitor survey is being conducted by local volunteers who have committed to a year of involvement reinforces the potential for sustainability in action - in accordance with Local Agenda 21. The participants have been trained in surveying and this knowledge will be retained in the local level, thus, facilitating future surveying and developing the local skill base.

The methodologies and implementation of the DIT-ACHIEV Model of Sustainable tourism Management will be further tested in Carlingford over the coming years. The learnings from Killarney have been reported to the Steering Committee in this new study site, and already measures are being planned to mitigate the anticipated problems. This will enable a refinement of the methodology for implementation of sustainable tourism and may result in a more robust analysis of activity in the destination. Consequently, it is expected that the various experiences of piloting the model will result in a best practice tool kit to facilitate the implementation of the ACHIEV model in any destination.

### ***What next?***

According to Denman, the next stages in the implementation of a Sustainable Tourism Strategy are:

5. Consult and agree on key issues and priorities
6. Determine strategic objectives
7. Develop an action programme
8. Establish or strengthen instruments to facilitate implementation
9. Implement actions
10. Monitor results

The project in Killarney will enter phase 5 of this methodology once a full year of visitor data has been collected. It is anticipated that the other data sets (i.e. other indicator values) will be assembled by that time. Because a much more streamlined consultation process is being followed in Carlingford, shortly afterwards this second destination will have reached the same stage. Thus a benchmark for tourism related activity will be identified in each destination, arising from which, an informed set of issues and priorities can be identified. Following this, the resultant stages outlined above can be entered. For the destinations, this will all lead towards developing, a continually

evolving Sustainable Tourism Strategy, and for the researchers, further validation of the model will have been achieved.

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