

<b>SPORTS, ARTS, CULTURE AND COMMUNITY SERVICES COMMITTEE</b>	<b>9</b>
<b>8 FEBRUARY 2012</b>	

## CAIRNS FESTIVAL 2011 EVALUATION REPORT

Eric Holowacz: EH: 1/60/21-03: #3379265

### **RECOMMENDATION:**

**That Council notes the 2011 Cairns Festival Evaluation Report and the intended actions to implement for the 2012 Cairns Festival.**

### **INTRODUCTION:**

This 2011 Cairns Festival report is for information purposes, and contains a post-event summary, audience evaluation and demographic data, key performance measurements, and forward planning recommendations for 2012 Cairns Festival. Additional information is provided as attachments herewith.

### **BACKGROUND:**

In the Sport, Arts, Culture and Community Services meeting on 11 November 2009, it was resolved that Council:

1. Manage the Festival internally for the 2010-2013 Festival Cairns events; and
2. Allocate \$490,000 per annum, indexed annually, to help develop and grow the Festival and have a dedicated artistic director for each Festival; and
3. Investigate options of establishing a Council owned not-for-profit company similar to the Darwin model for future festival delivery.

### **COMMENT:**

#### **Summary of the 2011 Cairns Festival Season**

The 2011 Cairns Festival marked the 50<sup>th</sup> season, and:

- was held 19 August to 4 September
- included 106 unique events and productions
- had a cumulative audience of over 110,000
- was successfully operated by a core team based within the Cultural Services & Facilities Branch
- Involved over 500 artists/creative participants, and engaged over 60 local and inter-state vendors

After 17 days of entertainment, events and a celebration of “50 Years Under a Tropical Sun,” Cairns Festival 2011 completed arguably one of the region’s most ambitious arts programs ever attempted.

- The milestone season involved thousands of participants, new inter-state partnerships, creative development projects, and a wider array of local performers and artists.
- Media coverage, inter-state networking, effective branding, and the quality of programming have resulted in Cairns Festival becoming a more visible feature of the Australian arts landscape.
- Innovative ideas, such as the Opening Notes Project, Posters to the People, Cairns Creative Crawl, the Gremlin street theatre project, La Mama Theatre collaboration, and Australia’s first Art-o-mat machine have helped our region connect and resonate with creative people around the country.

The 2012 Cairns Festival is planned for 17 August to 2 September, with the Grand Parade scheduled for Saturday 18 August. The 2012 Gordonvale Pyramid race is planned for Saturday 11 August and the 2012 Cairns Amateurs will be held over Friday 7 & Saturday 8 September 2012. Council’s arts planning officer, in the Creative Partnerships Team, has begun work on an options paper to present to Council in 2012, regarding the future position, structure, and resourcing of Cairns Festival beyond 2013.

### 2011 Cairns Festival Evaluation Methodologies

The following methods have been used to evaluate the Festival outcomes:

- Cairns Festival Objectives, Performance Measures, and Targets were developed by the producer and assessed following the event; see Attachment 1
- In partnership with James Cook University, under the guidance of Dr Darren Lee-Ross, formal metrics and survey procedures were developed to quantify economic, social and environmental impacts (using a sample of six major events within the Festival); see Attachment 2
- An Eco-footprint calculation was undertaken for Carnival on Collins; see Attachment 3
- An assessment of the Festival Budget outcome was undertaken

### 2011 Cairns Festival Program and Profile

Last year’s 50th season program comprised 106 unique productions, events, exhibitions, and creative projects made possible by over 1000 artists and creative people from the region and beyond. The season served an estimated combined audience of over 110,000, including major events such as

- the Grand Parade
- Cairns Indigenous Art Fair
- Gordonvale Pyramid Race
- Cairns Amateurs
- International Student Welcome
- Tropical Pride Festival
- Circus Oz season
- 7 free concerts at Fogarty Park

- 6 free film nights at Fogarty park
- Carnival on Collins.

New programming launched this year included

- the free/every day Muddy's Art Village for kids and families (17 days of free family activities)
- the Festival Stage at Fogarty Park (home to seven free concerts and six free film nights)
- Lush Late Night Cabaret
- Earthed Lounge at Tanks Arts Centre
- a greatly increased contemporary performance series at the Centre of Contemporary Arts (comprising music, theatre, puppetry, and dance programming).

Major new program partnerships were established as part of the 2011 Festival, including creative exchanges with

- Melbourne's La Mama Theatre
- Brisbane area's Woodford Folk Festival
- Townsville-based DanceNorth
- new partnerships for 2012 are being developed with Brisbane's Anywhere Theatre Festival and Adelaide-based Tuxedo Cat pop-up venue.

Far North artists and performers were a focus of the 2011 season, with events such as

- Jazz Under the Stars
- Crossroads: When the Wheels Fall off the World II
- Arthouse Roadshow series
- Lush Late Night Cabaret
- Icons of the Far North concert
- Cairns Big Band Extravaganza
- Cairns Indigenous Art Fair
- A Trip in a Time Machine big band concert
- Tropical Pride Festival
- UMI Arts Big Talk One Fire
- Pan Stars Steel Pan workshop
- Soul Song Jubilee Choir
- Pecha Kucha Night II
- Paradise Concerts The Four Seasons
- Overflow FNQ Grand Parade

A primary goal of the Festival is to provide a diversity of cultural opportunities for residents and visitors of all ages, collaborative projects with local artists and organisations, and popular aspects such as the Grand Parade, Carnival on Collins, and street theatre experiences. A greater emphasis was also placed on presenting and building audiences for contemporary theatre, dance, and stage works, thanks to a growing partnership with Arts Queensland's Cairns Centre of Contemporary Arts. Productions included artists and companies from interstate as well as international origins. Free events and activities proved most popular, and events such as the Grand Parade and Carnival on Collins drew the largest audiences

The 2011 Festival was managed by a team at the Cairns Regional Council's Creative Cairns Branch, based at the Festival HQ in City Place. The team included

- Two Council staff: Festival Producer and Festival Administrator

and external contractors in the seasonal roles of

- Festival Music Coordinator
- Festival Volunteer and External Relations Coordinator
- Festival Sponsorship Coordinator
- Festival Design and Branding Coordinator
- Media Relations and Publicity Coordinator
- Festival Photographer
- Grand Parade and Workshop Coordinator
- Technical Production Crew/Coordinator

Over 25 local volunteers provided an estimated 400 hours of donated service in support of the Festival's events, front of house, and information services.

The Cairns Festival season continues to impact the local economy through increased tourism, enhanced visitor experience, and direct and secondary expenditure. The Council continues to place a major focus on the Festival's role in the growth of the Far North tourism and hospitality industries and seeks to increase international and inter-state visitorship during August and September. Cooperative planning and support, and strategic ideas for inter-state audience development, continues in partnership with TTNQ, TQ, and Events QLD.

#### 2011 Cairns Festival Objectives and Performance Measurements (Attachment 1):

The Festival Producer has developed this document as an indicator of key objectives and goals, and performance against specified targets. The major objective areas relate to how the Festival:

- Contributes to the local economy
- Contributes to the creative growth of residents
- Involves a large and diverse participation base
- Attracts visitors from out of town
- Generates wide range of media coverage and positive image
- Presents high quality events and experiences
- Provides professional development for the creative industries

Of the 29 measurement areas, 26 objectives exceeded their target, with two objectives not having an adequate means of measurement in place. The significant underperforming area continues to be income from ticket sales, as venues in the region realise a downward trend in ticket sales for leisure and performing arts events. To counter that, Cairns Festival has worked to achieve higher income through sponsorship agreements and external grant funding.

The data also indicate some of the economic development effect of the Festival, including the professional development efforts with the region's creative industries. The figures also reveal a wide involvement by residents, local artists, and partner organisations, all of whom have formed a core participant base for Festival programming and public experiences.

2011 Cairns Festival: An Economic, Environmental, and Social Impact Study (Attachment 2):

Under the guidance of social scientist Dr Darren Lee-Ross, a triple bottom line evaluation was produced, based on audience surveys at a sampling of six events. Key findings and data from this report are:

- The largest single category of attendees was 20-29 (44%) with most of the remainder being evenly distributed between the 30-39 and 60+ classes. Ninety-seven percent of the sample had completed a secondary education with 56% achieving at least a certificate or diploma. The largest single category of profession was 'professional' (22%) followed by students (19%) and the self employed (14%).
- The festival catered to an audience dominated by the single 'local' category (44%) but overall 66% of attendees were non-local; of this, 29% were international visitors.
- Most respondents opted to stay in hostels (40%) with a minority choosing hotels or motels (9%). The remainder stayed with friends and relatives and apartments. Most non-locals stayed up to 10 nights in Cairns (52%) and most respondents overall planned to attend the festival for up to 4 days (74%) and were accompanied by family (33%) or friends (37%).
- Around 10% of non-locals said the Cairns Festival did influence their choice of destination.
- Most respondents (67%) said they attended the event for enjoyment and relaxation, to socialise or for fun and excitement. A majority were first aware of the event through word of mouth or had been told by family and friends (37%), had seen it advertised through brochures (21%) or via the television (12%).
- The direct economic impact of the Cairns Festival for the duration of the event was slightly short of \$55m based on an extrapolation from the sample to an estimated total number of 110,000 attendees. However, this estimate is likely to include an element of double counting which may account for up to 25% of the population. Moreover, given that 90% of non-locals said they would have visited Cairns in any case only \$5.5m can be considered direct income into the region. Estimates of organizer spend, sponsorships and other donations were unavailable at the time of writing.
- Environmental impacts were based on transport CO2 emissions on the day of asking as other information from suppliers, exhibitors, performers, utility and waste management companies was not forthcoming. Using Sherwood's (2007) approach rooted in the Australian Greenhouse Office (2005) and EPA Ecological Footprint Calculators (2006) each person contributed 30kg of CO2 or 0.42% of their annual footprint allowance.

- Social impacts were measured in terms of attendees' satisfaction and propensity to recommend the event to others. Most people were "barely satisfied" with the festival overall and with individual events. This does not mean they were dissatisfied as all scores ranked above the middle point of the five-point Likert-type scale used. Recommending the event to others and likelihood of returning were similarly scored. Once again this does not suggest dissatisfaction but does highlight areas in need of improvement.

The report also cited recommendations, which will be incorporated into the planning and delivery of the 2012 Cairns Festival. These include:

- Linkage of future research with other broader regional economic studies to identify the total economic impact through scrutiny of interactions and interdependencies within the Cairns economy;
- Consult accommodation suppliers for occupation rates during future festivals to help substantiate economic estimates;
- Closer liaison with the event organizer, suppliers, venue managers, utility providers and waste management companies for more comprehensive data collection around environmental impacts;
- More effective management of public facilities and screening of vendors to ensure a more comprehensive range of products offered;
- Revisit existing events for design, content and scheduling in line with current and emerging demographic preferences;
- Effective marketing of the Cairns Festival to non-locals within Queensland and Australia;
- Schedule the festival during times of peak tourism to maximize the potential of patronage;
- Establish a more effective way of estimating attendee numbers; and
- Increased data collection with more trained volunteers to increase sample size.

#### 2011 Carnival on Collins Eco-footprint:

Another area the Festival is actively engaged in is sustainability efforts, with Carnival on Collins now serving as a platform for an environmentally sustainability and well documented measures to lower carbon footprint. See 2011 Carnival on Collins Eco-footprint Report (see Attachment 3). To summarise of the Carnival on Collins eco-footprint study:

The eco-footprint of operations of this year's event was 110.68 tonnes CO<sup>2</sup> -e slightly less than last year's estimate of 113.3 tonnes of CO<sup>2</sup> -e emissions, because of:

- The use of much more efficient generators for powering the stallholders and
- the ability to offset consumption against the installed 20kW solar panels in the Visitor Centre.

In some areas, a slight increase was noted, but this was positive as it showed greater detail in calculations, due to:

- capturing data that was last year un-quantified, and
- the inclusion of the new Visitor Centre increasing the 'inside' component of the calculation.
- Lesser numbers of visitor due to the rain, whilst still catering for an anticipated 30 000. Footprint for each of the estimated 15 000 visitors was calculated to be 0.01 Global Ha

This figure of 110.68 tonnes CO<sub>2</sub>-e for the event is quite low due to the focus from the beginning of planning and operations, ensuring minimal use of electricity and minimal generation of waste, and the high level of compliance to requested standards by stallholders and participants.

#### 2011 Cairns Festival Budget Performance:

The Cairns Festival budget For 2011 Festival can be seen below.

#### **SUMMARY FOR 2011 FESTIVAL**

	<b>Income</b>	<b>Expense</b>
Budget :	\$55,000	\$606,313
Actual :	\$56,685	\$738,073
Variance	\$1,685	(\$131,760)

The variances are spread throughout the budget range but larger variances can be seen in the natural accounts of Catering, Promotional Services, one off contract staff, Print Advertising, Printing and Publishing, and Travelling Expenses of Entertainers.

Reasons for over expenditure and strategies to manage this over expenditure are still being investigated.

When looking at Festival from 2009 through 2011, using financial year data, you can see that variances are more positive.

The current position (31 December 2011) shows a to-date operating deficit, reflecting that the bulk of the Festival's annual expenses are committed in the First Quarter of the operating year (when the Festival is produced and presented). This is managed and intentionally diminished over the Second and Third Quarters (when Festival operational and production requirements are low). The results in the past have been a healthy bottom line by 30 June.

In support of the 2011 season, over \$60,000 in cash support was pledged by generous local sponsors, and an estimated \$50,000 beyond that was provided as in-kind support for Cairns Festival. 2011 Festival sponsors included James Cook University, BDO, Overflow FNQ, McDonald's Restaurants, Michael Aw The Good Guys, Cairns Penny Savings and Loans, Gilligan's Backpacker Resort, Ticketlink, Rydges Hotels, Sebel Cairns, Cairns Airport, Courthouse Hotel, Fosters Group, Go Transit, and Paronella Park.

Ticket sales (for the events at the Centre of Contemporary Arts only) resulted in an additional \$14,000 in income. This does not include ticket sales generated by events at Tanks Arts Centre, Civic Theatre, or external venues. The bulk of the Cairns Festival budget is spent in the region, and over 50 unique businesses and vendors were engaged to provide goods and services this season.

### 2012 Cairns Festival improvement measures:

The Cairns Festival operates on a Continuous Improvement model, and incorporates regular feedback into the planning and delivery of future programming. Small, easy-to-implement adjustments are made on a regular basis, and budget resources are managed with a risk-averse stance. Recent budget adjustments have diminished capacity in the current fiscal year, and will impact seasonal staffing, technical production, marketing, and scope of events for the 2012 Festival. On a positive note, the Festival has realised a growth in cash sponsorships over the past two years, and has begun applying for project-based grants from Festival Australia, Arts Queensland, and other government funding bodies.

Proceeding from the Cairns Festival evaluation and feedback, the following actions have been identified by the Producer as improvements for the 2012 season:

- Utilise feedback and success of 2011 season to plan and present 2012 Cairns Festival, 17 August to 2 September
- Develop more partnerships with significant arts organizations and cultural producers throughout Australia.
- Plan collaborative projects and events that benefit the local creative community, grow audiences for the Festival, and ensure a diverse mix of programming; do this within budget limitations.
- Ensure that local and regional artists and productions are well represented in the Festival season
- Assist potential events and projects with funding, venue, technical, and marketing matters
- Structure the call for Expressions of Interest to allow for open submissions by creative people in the region and beyond.
- Prepare and present an outline of 2012 program elements, artists, venue usage, and productions as early as possible in 2012. Confirm cooperative programming/events with Tanks Arts Centre, Civic Theatre, KickArts, JUTE Theatre, CIAF, and Regional Gallery by March 2012.
- Continue to develop Fogarty Park as the Festival hub, and continue free programming and community use of the park and environment there; do this within budget and staffing limitations, and in partnership with Inner City Facilities.
- Ensure that funding is provided for Esplanart, via Cultural Services Branch/Public Art Advisory Group budget; issue EOI's for commissions in early 2012.
- Invite and nurture involvement and partnership with the region's schools, educators, and classrooms
- Grow the capacity and programming of the kids art village; manage this growth according to budget and staffing limitations.
- Develop marketing plan in house, similar to 2011 plan and according to available budget resources; conduct advertising negotiations and placement in house
- In partnership with TTNQ, place ads in key inter-state and international markets.
- As in 2011, host media famil in advance of the season to connect high profile editors and journalists from inter-state; develop and host hotel/concierge famil;
- Continue to develop partnership with Cairns Airport
- Grow on-line exposure strategy, and banner ad placements, marketing with Cairns.com.au, social media and Facebook, and key websites in the region.

- Continue the development of Festival sponsorships and major partner relationships with the business community; seek involvement from the Council's Strategic Events officer
- Engage seasonal staff and contractors as early as possible, but within budget limitations.
- Continue to grow Festival volunteer corps and provide meaningful service opportunities for members of the community.
- Continue to operate all aspects of the Festival according to budget and allocation; continue conservative approach to resource management and maintain a risk-averse stance on large-scale changes, projects or developments.
- In partnership with James Cook University, develop events in celebration of the 25th anniversary of Cairns campus
- Continue to develop creative partnerships with Woodford Folk Festival, Brisbane-based Anywhere Theatre Festival and Adelaide-based Tuxedo Cat
- Work with Council officers to prepare and submit a Major Events funding request to Events Queensland, with aim of securing \$100,000 per annum for Cairns Festival

The Cairns Festival has evolved quite a bit over the years but there is always room for improvement. Over time the festival has had an emphasis on being primarily a civic event which offers free cultural entertainment for locals and visitors. Council officers are currently researching other festival models and management structures as per the resolution of Council stated previously in the background section of this report. Officers will be presenting an options paper to be presented early to the new Council which will assist to shape the future direction and management of the Cairns Festival in the 2013 year.

### **CONSULTATION:**

Hundreds of local community and arts leaders were involved in the planning and delivery of the 2011 Cairns Festival. Successful strategic initiatives, such as the Arts Leaders Lunch and Cairns Artful-e newsletter, were used to share communication across the local arts scene. The Council's Festivals Advisory Committee also met in advance of the season to share information and ideas among the region's Festival efforts.

### **CONSIDERATIONS:**

2011 Cairns Festival activities relate to several of the Council's objectives and goals, as indicated in the Corporate and Operational Plans:

#### **Corporate Plan:**

Goal 2: To build more creative, innovative and self reliant communities where participation in community life is enabled and encouraged.

2.4 Provide enhanced arts and cultural activities that add value to the life of residents and visitors alike.

Policy:

The Cultural Plan has an entire chapter dedicated to Festivals. Specific action plan items include:

- *Implement a bold, progressive events management arrangement, which includes a Professional Artistic Director to manage and operate Festival Cairns.*
- *Collaborate with contemporary arts groups to provide fresh, innovative product and performances specifically for a festival or event.*

Financial and Risk:

2011 Cairns Festival was produced using a risk-averse approach and a conservative planning and delivery model. Scope of programming was based on the allocated budget and a realistic expectation of sponsorship and ticket income beyond that. Risk has been further allayed by the increase in cash and in-kind sponsorships over the past year, the potential of new external funding through projects grants, and by strategically timing and limiting the Festival's major predictable costs, such as seasonal contractors, marketing and media buying, technical production, and artist fees.

**SUSTAINABILITY:**

For the 2011 Festival, the Carnival on Collins event continued an eco-friendly ethic and implemented a range of sustainability efforts. This involved a multi-faceted approach with vendors and consumable materials/packaging, educating the general public about recycling, and finding ways to reduce the overall carbon footprint of the event. Please see the Carnival on Collins Eco-footprint Report (see Attachment 3) for a summary of actions and objectives. The 2012 Festival will attempt to use methods implemented by Carnival on Collins (as well as branch-level initiatives currently being developed) to realise a sustainability ethic on a wider scale and among our external partners, Festival venues, and event producers.

**Improving Resource Efficiency**

The activity includes strategies to reduce the consumption of raw materials by at least 10%.

The activity does not include or use materials or products with an industry recognised sustainability rating.

The activity includes actions to improve the environmental values of the site/precinct OR to develop habitat corridors.

**Enhancing Community Health and Wellbeing**

The activity will deliver additional open space or improve the amenity of existing open space.

The activity involves the delivery of a new or improved community program.

The activity includes actions that will provide/ improve access to services for all members of the community.

The activity meets or exceeds Service Standards.

**Delivering Sound Governance and Economic Management**

The activity will support employment in the region, via external businesses or by increasing jobs within Council.

The activity will use materials that are sourced, grown and/or manufactured in North Queensland.

The activity is within budget and meets or exceeds the scope defined in the Operational Plan.

In order to ensure long-term financial sustainability, the Festival will continue to expand its sponsorship income (both cash and in-kind) and grow the relationships with businesses, organizations, and funding bodies. A major grant of \$38,000 from Festivals Australia has been awarded in support of new programming for the 2012 season. A major grant is being prepared for Events QLD for a February 2012 deadline.

**CONCLUSION:**

2011 Cairns Festival successfully presented the most ambitious season ever attempted in far North Queensland, and marked the milestone 50<sup>th</sup> Festival with a diverse, contemporary, and community engaging program. Audience and participant feedback has been positive and enthusiastic about the experiences provided by Council. Community involvement proved strong for key aspects such as the Grand Parade, Free Films and Concerts, Cairns Indigenous Art Fair, Tropical Pride, and Carnival on Collins. Other smaller events and externally produced elements ensured a wide array of creative opportunities and local content were on offer. Contemporary artistic programming and new partnerships have helped build the Cairns Festival's reputation in the region and inter-state, and our efforts to build cultural tourism are beginning to grow.

**ATTACHMENTS:**

Attachment 1: 2011 Cairns Festival Performance Goals, Indicators, and Targets (DM5 #3414581)

Attachment 2: 2011 Cairns Festival: an Economic, Environmental, and Social Impact Study (DM5 #3414369)

Attachment 3: Carnival on Collins Eco-footprint Report (DM5 #3390673)

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**ATTACHMENT 1:**

## 2011 Cairns Festival Performance Goals, Indicators, and Targets

1/12/2011

MAJOR OBJECTIVES	PERFORMANCE MEASUREMENT	TARGET OBJECTIVE	2011 RESULT		COMMENT
<b>Cairns Festival Contributes to the Local Economy</b>	Number of vendors or individuals hired directly by the Festival in 2011	Festival hires at least 30 unique vendors from the region	56	✓	Far exceeded target; Festival has a strong ethic of hiring local businesses
	Number of artists or crafts-people hired directly by Festival	Festival hires at least 10 artists/crafts-people from the region	18	✓	Far exceeded target; Festival has a strong ethic of hiring local artists
	Amount of income to Council generated by ticket sales, sponsorship, and in-kind support	direct cash or in-kind income of \$100,000 generated	76,000	X	Ticket sales continue to be lower than expected; cash sponsorship also hard to achieve in current economic climate
	Amount of direct spending by Council related to Festival	Council will spend at least \$500,000 to promote, operate, and present the Festival	\$453,000	✓	Represents budgeted amount allocated by Council to Cairns Festival
	Economic Impact of direct spending by Council related to Festival	Direct attributable economic impact of at least \$5 million	\$5.6 million	✓	Based on 2011 Evaluation/Impact Study
	Increased activity and free events in the CBD	Festival presents at least 10 free events in the CBD	7 music; 6 film; 17-days of free activities for children/families	✓	Well exceeded target; Festival programs a wide range of free events for the community
	Increase in sales and trade at local hotels, restaurants, and shops	Local businesses report an increase in sales and customers during the Festival dates	Anecdotal evidence supports this; no scientific study conducted as yet	?	Festival has not implemented a formal study for this data
<b>Cairns Festival Contributes to the Creative Growth of Residents</b>	Number of community creative development workshops offered by Festival	Festival presents at least 20 days of unique creative development workshops	24 days	✓	Result of creative community development workshops leading to the parade and Festival season
	Number of participants in creative development workshops	Festival involves at least 200 people in creative development workshops	300	✓	Far exceeded target; Festival grew its workshops and pre-season activities in 2011
	Number of floats/groups represented in the parade	Festival involves at least 50 floats/unique groups in the parade	64	✓	Parade interest and participation remains strong
	Number of total participants in the parade	Festival involves at least 500 people in the parade	600	✓	Parade interest and participation remains strong
	Number of days of free children's arts activities offered	Festival offers at least 10 days of free children's arts activities	17	✓	Result of development of Muddy's Art Village at Northern Esplanade
<b>Cairns Festival Involves a Large and Diverse Participation Base</b>	Number of overall/aggregate audience for Festival season	Festival serves at least 100,000 people as estimated aggregate attendance	110,000	✓	Includes all events and activities in 2011 season
	Number of artists and creative participants involved in Festival events	Festival estimates indicate at least 500 people directly involved in events	900	✓	Includes all events and activities in 2011 season
	Number of volunteers engaged as support for Festival events	Festival realises at least 20 volunteers directly involved as Festival volunteers	24	✓	Successful effort to build the Festival's volunteer base, including orientation, rewards, and group appreciation activities

<b>Cairns Festival Involves a Large and Diverse Participation Base</b>	Number of external event proposals received	Festival received at least 50 proposals	102	✓	Far exceeded target; there is great interest in being involved in the Festival season
	Number of external events and major partner events presented as part of Festival season	Festival includes at least 20 external events and majos partner events	23	✓	Selection is based on quality of event, likelihood of success, and diversity of overall season
	Number of children and families participating in free arts activities	Festival realises at least 1,000 people participating in free arts activities	3400 (average 200 per day)	✓	Muddy's Art Village interest and participation were strong throughout the season
<b>Cairns Festival Attracts or Includes Visitors from Out of Town</b>	Percentage of audience visiting from out of town (non local)	at least 15% of surveyed audience is indicated as non-local	56% non-local	✓	Represents an increase over previous data
	Number of different countries represented by visitors/audiences to Festival	at least 6 foreign countries represented by Festival attendance surveys	29% of non-local audience was international	?	represents an increase over previous data
	Number of days visitors spent in Cairns during their stay	non-local attendees surveyed average 3 or more days or more in Cairns	74% of non-local audience indicated a stay of 4 days or longer	✓	Average stay is longer than a few days
<b>Cairns Festival Generates Wide Range of Media Coverage and a Positive Image for our Region</b>	Enhanced inter-state and international recognition of region, culture, and values	Festival realises over 10 media clippings from inter-state/Southern Queensland	7 clippings; see Cairns Festival Pre-season Press Clippings Report (DM5# 3414507)	✓	Inter-state editorial coverage was strong following Festival media famils in June/July
	Increased awareness in the region as a creative, culturally rich tourist destination	Festival realises at least 20 media clippings from local newspapers and print publications; wide range of local radio and television coverage	50+; see Cairns Festival Press Clippings Report (DM5# 3413816)	✓	Local/regional editorial coverage was strong due to a proactive publicity plan
	Increased local pride and community spirit	Survey responses average audience satisfaction at Satisfied to Very Satisfied	Survey overall score was "Satisfied" (1 using a Linkert-type scale of -2 to 2)	✓	Indicates an overall satisfaction with the Festival service delivery
<b>Cairns Festival Presents High Quality Events and Experiences for Residents and Visitors</b>	Attendees would recommend the Festival to someone they know	Survey responses average Likely to Very Likely	Survey overall score was "Likely" (1 using -2 to 2 scale)	✓	Indicates an overall satisfaction with the Festival service delivery
	Attendees are satisfied with the Cairns Festival overall	Survey responses average Satisfied to Very Satisfied	Survey overall score was "Satisfied" (1 using a Linkert-type scale of -2 to 2)	✓	Indicates an overall satisfaction with the Festival service delivery
<b>Cairns Festival Provides Professional Development for the Creative Industries</b>	Number of artists or crafts-people hired directly by Festival	Festival hires at least 10 artists/crafts-people from the region	18; not including production personnel	✓	Festival has a strong ethic of hiring locally and involving local artists in its productions, events, staging
	Number of artists and creative participants involved in Festival events	Festival estimates indicate at least 500 people directly involved in events	900	✓	900
	Festival articulates how it contributes to the development of the Creative Industries	Festival provides 5 case studies of specific professional development for creative industries practitioners	2011 Case studies include testimonials from Gremlin Project participants, Soul Song Choir, Grand Parade, Drum Up Big, and Fogarty park music program.	✓	Festival has a strong ethic of providing creative development opportunities for local artsits and performers

**ATTACHMENT 2:**



**THE CAIRNS FESTIVAL 2011: AN ECONOMIC, ENVIRONMENTAL  
AND SOCIAL IMPACT STUDY**

**FINAL REPORT**

by

**ASSOCIATE PROFESSOR DARREN LEE-ROSS**

**NOVEMBER 2011**

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## Executive summary

### Introduction

The Cairns Festival is an annual event enabled through Cairns Regional Council and other local sponsors and partners and celebrates the region's unique tropical geography, location and culture over 17 days. In 2011, the festival took place during August and September. In mid 2011, James Cook University was commissioned to develop an instrument to primarily assess the economic impact of the event. Additional aims were to assess both the environmental and social effects of the event. The research consisted of one main element:

- An attendees' intercept survey carried out during the festival to assess the above dimensions at six free events.

Data were collected by a team of volunteers who had undergone training for the purpose of the project. They conducted intercept interviews with 266 attendees over the duration of the Cairns Festival at free events only.

### Key findings

- In terms of gender, respondents were evenly divided with 52% female and 48% male. The largest single category of attendees was 20-29 (44%) with most of the remainder being evenly distributed between the 30-39 and 60+ classes. Ninety-seven percent of the sample had completed a secondary education with 56% achieving at least a certificate or diploma. The largest single category of profession was 'professional' (22%) followed by students (19%) and the self employed (14%).
- The festival catered to an audience dominated by the single 'local' category (44%) but overall 66% of attendees were non-local; of this, 29% were international visitors. Most respondents opted to stay in hostels (40%) with a minority choosing hotels or motels (9%). The remainder stayed with friends and relatives and apartments. Most non-locals stayed up to 10 nights in Cairns (52%) and most respondents overall planned to attend the festival for up to 4 days (74%) and were accompanied by family (33%) or friends (37%).
- Around 90% of non-locals said the Cairns Festival did not influence their choice of destination.
- Most respondents (67%) said they attended the event for enjoyment and relaxation, to socialise or for fun and excitement. A majority were first aware of the event through word of mouth or had been told by family and friends (37%), had seen it advertised through brochures (21%) or via the television (12%).
- The direct economic impact of the Cairns Festival for the duration of the event was slightly short of \$55m based on an extrapolation from the sample to an estimated total number of 110,000 attendees. However, this estimate is likely to included an element of double counting which may account for up to 25% of the population. Moreover, given that 90% of non-locals said they would have visited Cairns in any case only \$5.5m can be considered direct income into the region. Estimates of organizer spend, sponsorships and other donations were unavailable at the time of writing.

- Environmental impacts were based on transport CO2 emissions on the day of asking as other information from suppliers, exhibitors, performers, utility and waste management companies was not forthcoming. Using Sherwood's (2007) approach rooted in the Australian Greenhouse Office (2005) and EPA Ecological Footprint Calculators (2006) each person contributed 30kg of CO2 or 0.42% of their annual footprint allowance.
- Social impacts were measured in terms of attendees' satisfaction and propensity to recommend the event to others. Most people were barely satisfied with the festival overall and with individual events. This does not mean they were dissatisfied as all scores ranked above the middle point of the five-point Likert-type scale used. Recommending the event to others and likelihood of returning were similarly scored. Once again this does not suggest dissatisfaction but does highlight areas in need of improvement.

### **Key recommendations**

- Linkage of future research with other broader regional economic studies to identify the total economic impact through scrutiny of interactions and interdependencies within the Cairns economy;
- Consult accommodation suppliers for occupation rates during future festivals to help substantiate economic estimates;
- Closer liaison with the event organizer, suppliers, venue managers, utility providers and waste management companies for more comprehensive data collection around environmental impacts;
- Establish a working group to revisit and scrutinize individual events and the overall festival to improve satisfaction rates;
- More effective management of public facilities and screening of vendors to ensure a more comprehensive range of products offered;
- Revisit existing events for design, content and scheduling in line with current and emerging demographic preferences;
- Effective marketing of the Cairns Festival to non-locals within Queensland and Australia;
- Schedule the festival during times of peak tourism to maximize the potential of patronage;
- A 360 degree approach to future festival-related research extended to the local community and other key stakeholders;
- Establish a more effective way of estimating attendee numbers; and
- Increased data collection with more trained volunteers to increase sample size.

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## **THE CAIRNS FESTIVAL 2011: AN ECONOMIC, ENVIRONMENTAL AND SOCIAL IMPACT STUDY**

### **FINAL REPORT**

## **1 Introduction and background to the study**

The Cairns Festival is an annual event enabled through Cairns Regional Council and other local sponsors and partners and celebrates the region's unique tropical geography, location and culture over 17 days. In 2011, the festival took place during August and September and included a wide range of events reflecting the collaborations between key stakeholder groups, artistic innovations and original contributions to place and society in the Cairns region. Now in its 50<sup>th</sup> year the festival boasts of over 100 unique exhibitions, projects and productions ranging from the Tropical Pride Festival to Cairns Amateurs, from the Indigenous Art Fair to free concerts and from late night cabaret to Muddy's Art Village for children. Originality is a key characteristic of the Cairns Festival with novel events introduced and included on a year-round basis. 2011 was no exception but extra impetus was added given the events 'golden' anniversary as the inaugural festival was held in 1962.

Organizing and hosting events is usually regarded as worthwhile because of the enjoyment they convey to those who attend and participate. The three most often cited impacts of large-scale events are economic, social and environmental. Until fairly recently, the economics of events was almost exclusively reported due to the financial benefits often forthcoming from outside the host region. However currently, interest has also focused upon the social and environmental aspects of events due first to the catalytic influence upon wider social effects such as community and skills development; and second, the possibility of adverse environmental impacts. In mid 2011, James Cook University was commissioned to conduct an assessment of these three important areas linked to the Cairns Festival.

### **1.1 Research aims and approach**

The overall aim of this study was to develop an instrument to primarily assess the economic impact of the Cairns Festival. Additional aims were to assess both the environmental and social effects of the event. The actual research consisted of one main element:

- An attendees' intercept survey carried out during the festival to assess the above dimensions at six free events.

Data were collected by a team of volunteers who had undergone training for the purpose of the project. Volunteers conducted intercept interviews with attendees for the duration of the Cairns Festival at free events only. These were considered most appropriate given the prospect that more people would be attending increasing the chance of maximizing the sample size. Events were also chosen by date, that is, two each at the start, middle and end of the festival to give a balanced perspective of attitudes and opinions. Events were:

- Friday Aug 19 - Opening night concert Esplanade
- Sunday Aug 21 - Grand Parade & Fireworks Esplanade
- Monday Aug 29 - Films at Fogarty, Fogarty Park

- Saturday Sep 3 - Public opinion Afro Orchestra
- Sunday Sept 4 - Carnival on Collins, Collins Avenue
- Sunday Sept 4 - Tijuana Cartel Fogarty Park

A total of 266 responses were gathered from the intercept surveys over the duration of the festival.

## 1.2 Survey

One survey instrument was used to collect data from attendees. Economic items targeted demographics, accommodation used, length of stay, expenditure in the Cairns region. Environmental items included origin of attendees and mode of transport used. Social items included motivation for attendance, satisfaction with individual events, satisfaction with the festival overall and service quality, prior attendance, re-attendance and likelihood of recommendation to others. Please see Appendix 1 (p. 25) for a copy of the survey.

It is worth noting that a degree of error will always occur when samples are drawn randomly from a population. In the present case the population size was in excess of 1000. Therefore, the absolute size of the sample determined sampling error not the relative size of the sample compared with its population (see Seigel, 2000). Two-hundred and sixty-six attendees were interviewed and according to previous computations established by statisticians (<http://www.eventimpacts.com/project/project>), the maximum degree of sampling error was around +/- 6%. For example, if 50% of attendees in the current sample said they would be 'very likely' to recommend the Cairns Festival to others, the true population answer would be somewhere between 50% +/- 6, that is between 44% and 56%.

However, sampling error applies to random samples only. Whilst attempts were made to increase the chance of the current sample being truly random (by interviewing every fifth person), it is almost impossible to demonstrate that this has been so. Events only have a limited amount of time in which to collect data from attendees. Pragmatically for the Cairns Festival, the aim was to collect as much information from as many people as possible (convenience sampling) spaced uniformly over its duration. It was hoped that this would represent the population as reasonably as possible given the constraints present.

## 1.3 Structure of the report

This report is organised under the following headings:

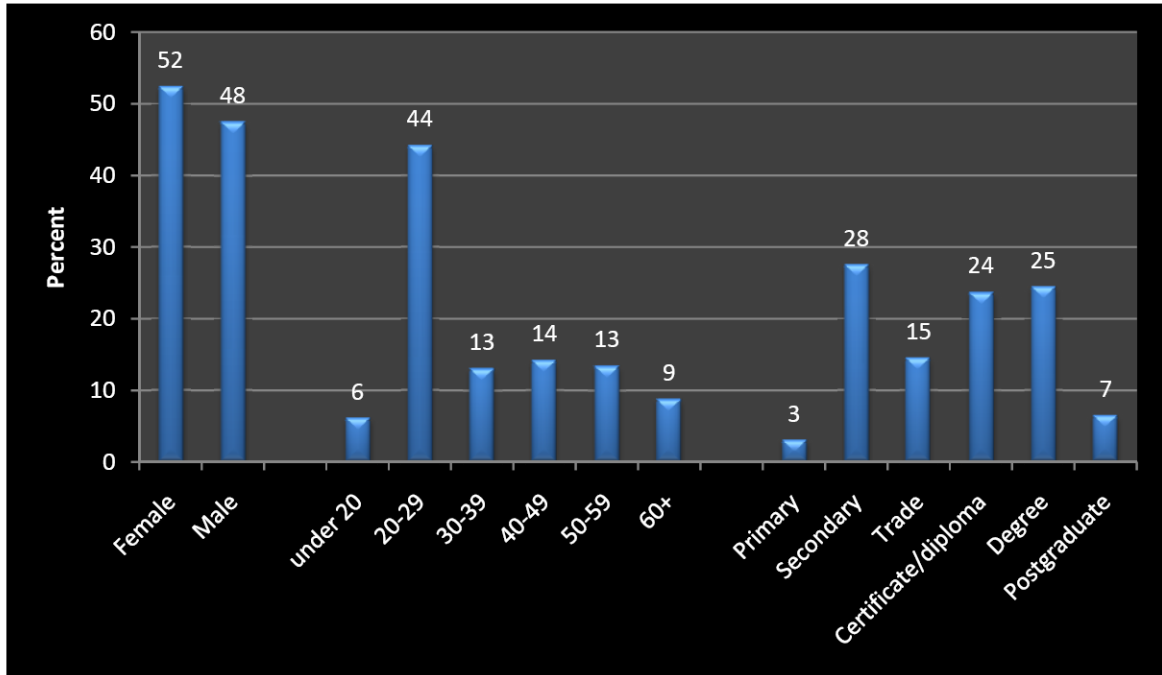
- Key demographic and other findings;
- Economic impacts;
- Environmental impacts;
- Social impacts including satisfaction markers; and
- Conclusions and recommendations.

## 2 Key demographic and other findings

This section of the report presents the findings from the intercept survey undertaken at the Cairns Festival 2011.

The demographic profile of the sample by percentage is shown in Figure 1.

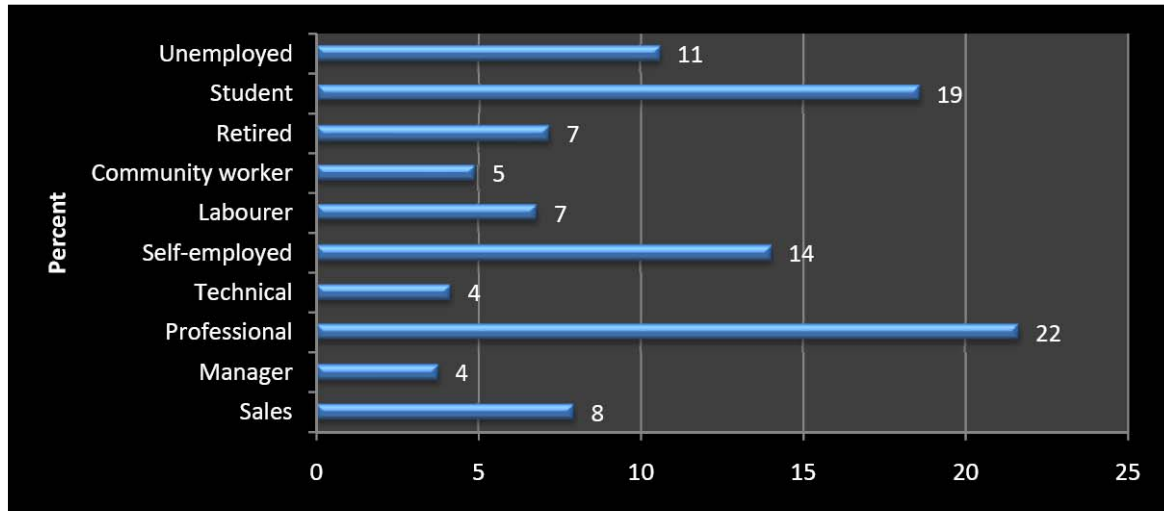
Figure 1 Demographic profile (gender, age, education)



There was a fairly even split between females and males and the largest single age category was 20-29. Most of the remainder had a broadly even distribution with the exceptions of under 20 and 60+ classes. The highest qualification achieved for most people was secondary with a minority in the primary category. However, those attendees having either a certificate/diploma or degree were reasonably evenly split and made up around half of the sample.

Figure 2 shows a breakdown of the sample by percentage by occupation.

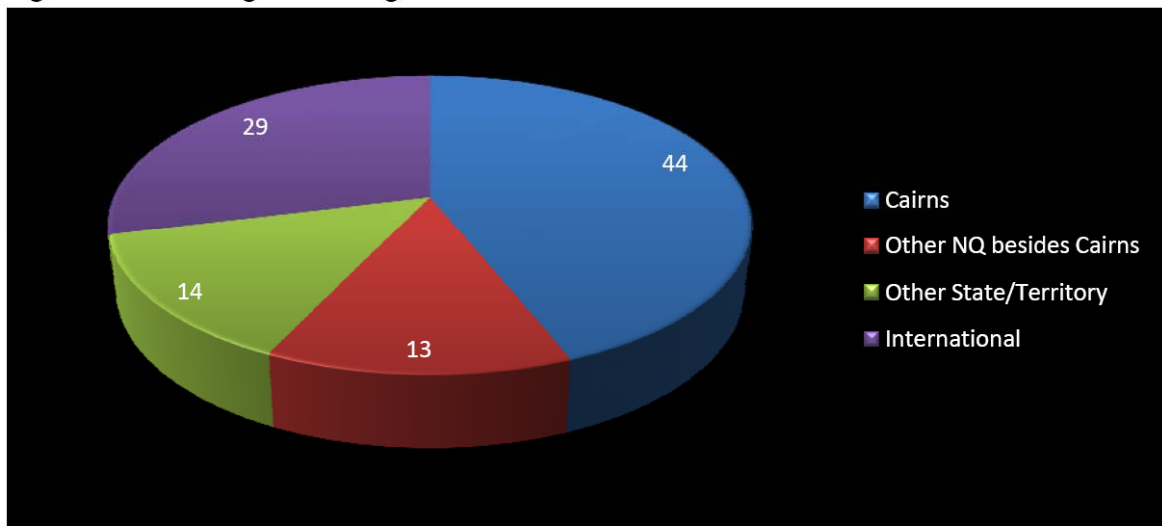
Figure 2 Occupation



Most of the respondents described their occupation as professional with almost as many indicating their status as students. The smallest proportions were represented by technicians and managers.

Attendees were asked for their home postcode followed by an inquiry into which region this represented. Figure 3 shows the regions of origin by percentage for the sample.

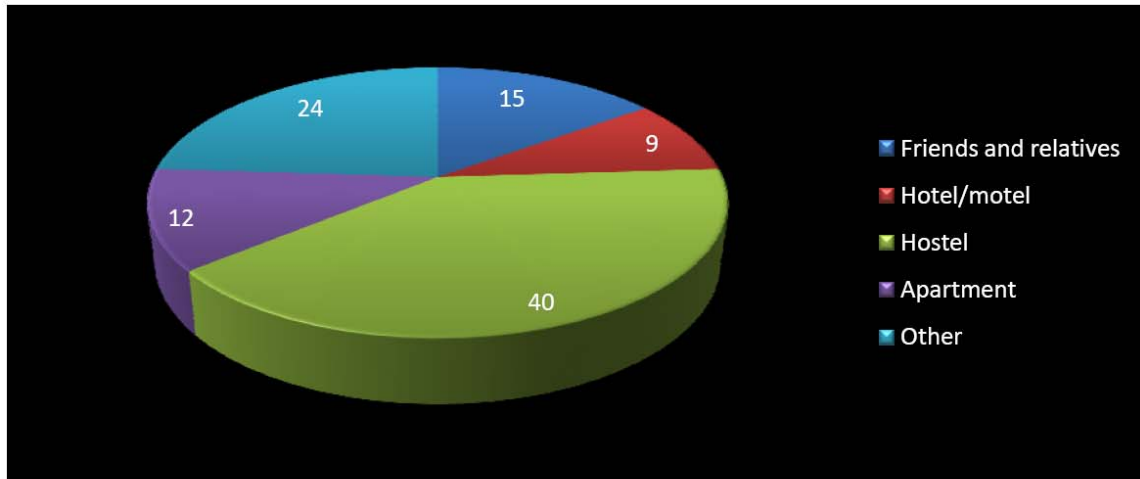
Figure 3 Regions of origin



The largest single category of origin was Cairns with both other NQ and interstate visitors being the smallest. However, most of the combined sample was not local to Cairns. This is an important issue when considering the economic impact of the event and is discussed later in this report.

Figure 4 shows the type of accommodation used whilst in Cairns.

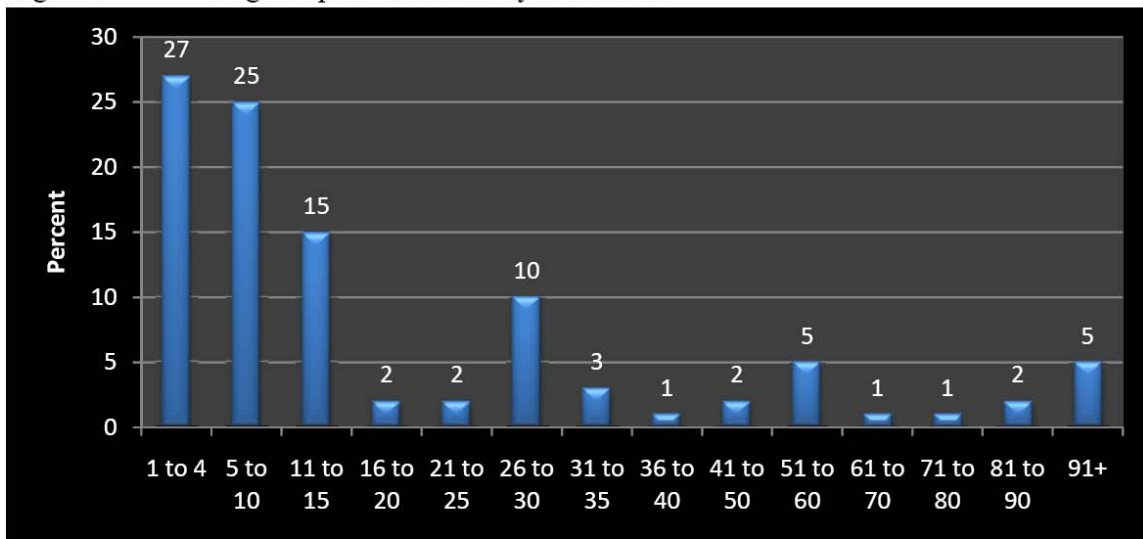
Figure 4 Accommodation used



The largest proportion of the sample chose to stay in an hostel. The least popular choice of accommodation was hotel/motel. Whilst it is difficult to be accurate this suggests a degree of price sensitivity amongst respondents who appeared to avoid the arguably more expensive accommodation sector of the tourism industry in Cairns.

The figure below shows how many nights non-locals spent in Cairns.

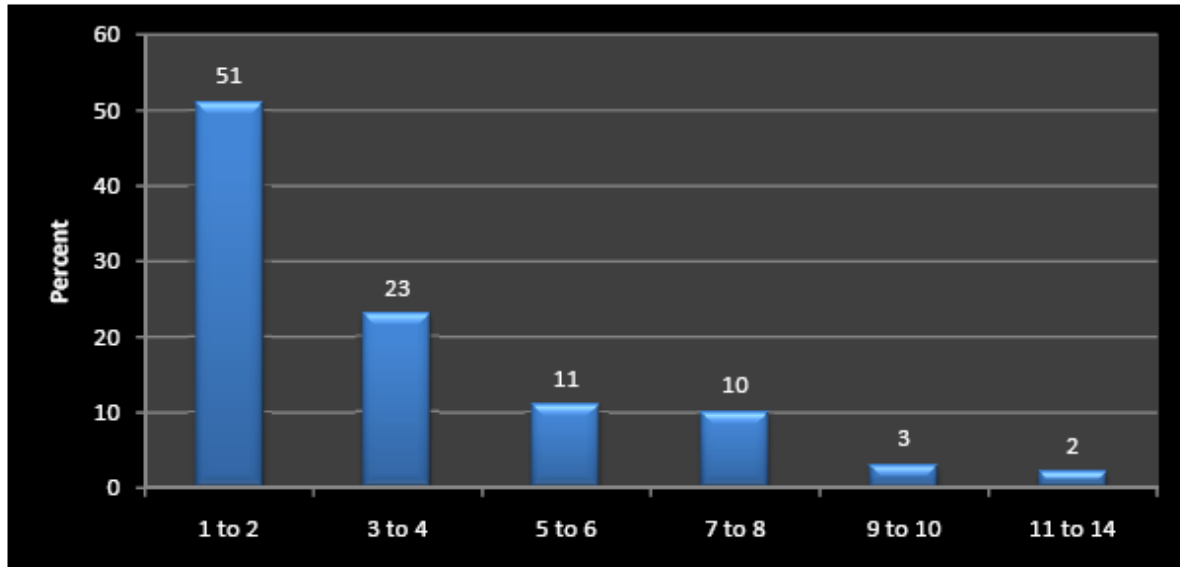
Figure 5 Nights spent in Cairns by non-locals



Over fifty percent of non-locals spent up to ten nights in Cairns with the first two categories (1 to 4 and 6 to 10) being broadly evenly distributed.

The figure below shows how many days respondents planned to attend the Cairns Festival.

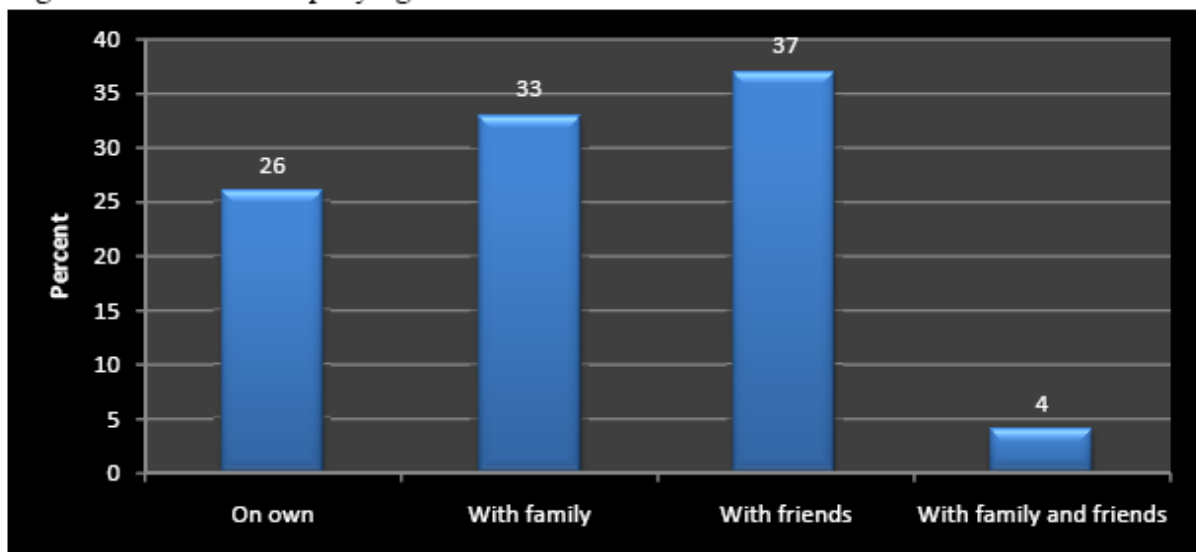
Figure 6 Expected days at Cairns Festival



Most people intended to stay for up to two days with only two percent attending for the duration of the festival. This is reflected in accommodation duration shown in Figure 5 and might be linked with less popular individual events after the initial two to four days. However, these results do not show actual dates so with the exception of the latter categories it is difficult to identify which particular days fall where along the 14-day calendar. For example, some people intended to stay for up to two days but these could fall at the beginning or toward the end of the festival.

Respondents were asked with whom they attended the festival (question 9). The results are shown in Figure 7.

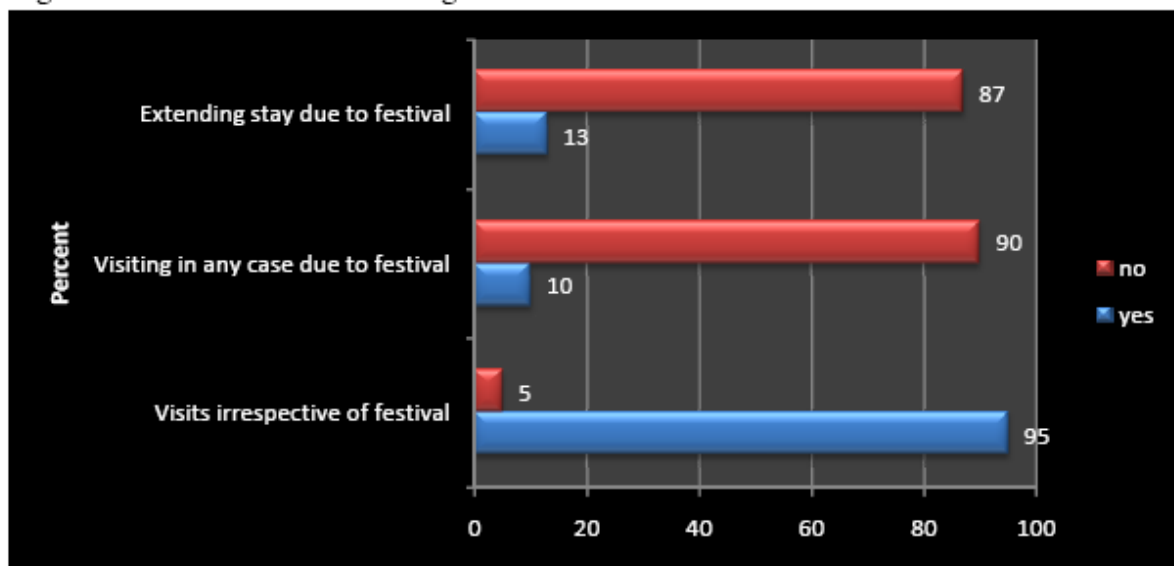
Figure 7 Accompanying attendees



The first three categories are broadly evenly split but most were accompanied by friends. The second largest proportion ('with family') possibly reflects the family oriented nature of the festival's events.

Figure 8 shows whether non-locals would have visited Cairns irrespective of the festival. They were also asked "If you were going to visit Cairns in any case...was the visit because of the festival" (question 14). Finally, the figure shows whether non-locals who had already decided on a visit extended their stay because of the festival.

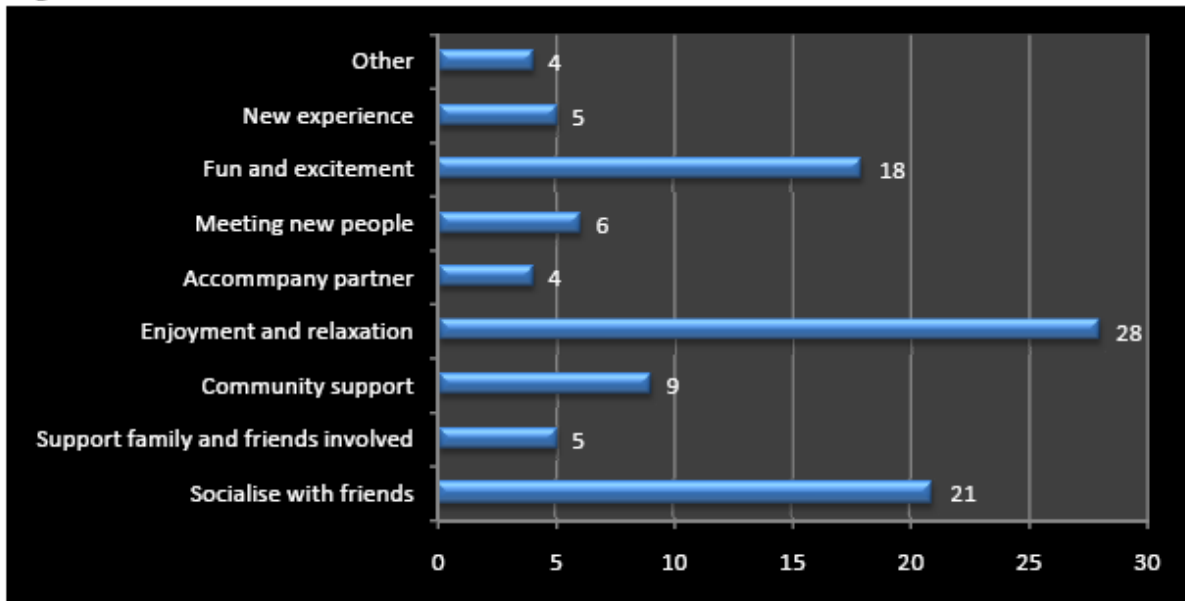
Figure 8 Non-locals visiting Cairns for the festival



For each question the overwhelming percentage of non-locals were not influenced in their decision to visit Cairns by staging of the Cairns Festival. This has implications for the actual economic impact of the event upon the region and clearly suggests that the festival should not be narrowly viewed from a financial perspective. Cairns is an important international tourist destination irrespective of the festival. Given the large combined proportion of incomers (see Figure 3) scheduling of the festival during peak tourist periods would maximize patronage of the event. The Cairns Festival adds another dimension to the tourist experience and is likely to enhance goodwill toward the region for all visitors.

Attendees were also asked their main reason for attending the Cairns Festival (question 22). Figure 9 shows that most respondents patronized the event for enjoyment and relaxation.

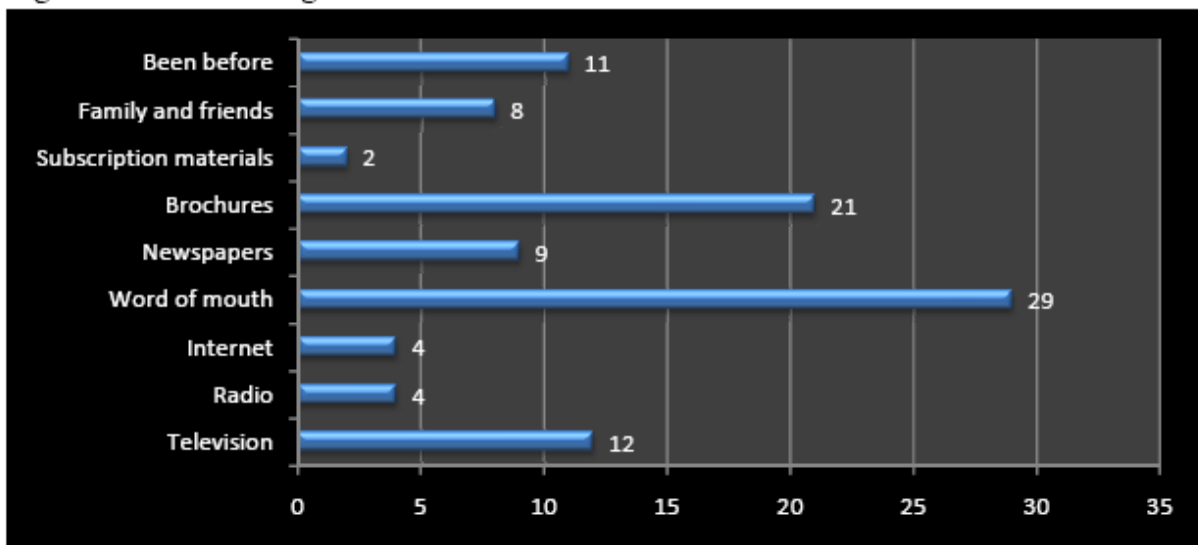
Figure 9 Main reason for attendance



The other two major reasons for attendance were to socialize with friends and for the purpose of experiencing fun and excitement.

The following figure shows how people first heard about the Cairns Festival.

Figure 10 Hearing about the Cairns Festival



A majority of the sample first heard about the event through word of mouth. Internet, radio and subscription materials were only marginally important in this regard. The event organizers may want to consider scrutinizing their use of these three channels for future events.

The following section of the report presents the research findings of the economic impact of the Cairns Festival.

## 2.1 Economic impact

Turco (1995) defines economic impact as the net economic change in a host community that results from spending attributed to an event. In other words, it is the total amount of additional expenditure generated within a defined area (Cairns) as a direct consequence of staging the event. Direct economic impact is also known as the 'first round' of spending, that is, direct transactions between incomers to the host economy and those within it. The main elements are visitor and organiser spending. The former category comprises spectators and attendees and usually accounts for most of the expenditure. Organizer spend can also generate expenditure in the host economy but to a lesser degree. Organizer spend was not available at the time of writing and is therefore excluded from Table 1 on page 10.

It is worth noting that exaggerating crowd sizes for the purpose of public relations is common practice but it severely compromises evaluations based on estimates. For example, inflating attendance escalates the economic impact of an event whilst simultaneously overstating the carbon footprint. Ticketed events do not suffer from these vagaries for obvious reasons but it may be problematic for non-ticketed events such as those targeted in the present study. It is important that estimates are realistic and representative and several approaches have been developed using video and still photography. For example, video footage may be shot at strategic moments during an event. From this the number of attendees for a given square metre may be derived and aggregated upwards over the whole area of the event for its duration. For a linear carnival this approach could be used with the number of spectators each side of the road per given area multiplied by the number of meters or kilometres travelled by the floats. Unfortunately, due to resource constraints this technology was unavailable. However, a reasonable quantum was estimated from the conference organizer based on historical data. However, there is still a chance that attendees may be double counted especially for those viewing for more than one day. It is with this proviso that the data contained in this report must be tempered. The estimate for the Cairns Festival was based on the following historical information (Holowacz, 2011) based on the '100+' event season over 17 days:

- CIAF 15,000
- Grand Parade 15,000;
- Carnival on Collins 10,000;
- Amateurs 5,000;
- Tropical Pride 2,000;
- Tanks events 4,000;
- Civic events 7,000;
- Fogarty Park events 15,000;
- Muddy's Art Village 3,000;
- CoCA events 2,000;
- Gallery visits 3,000; and
- Unspecified others 29,000.

The present study uses a commonly accepted approach to the measurement of economic impacts for events (see Event Impacts, 2010). Simply, these are to establish the spending patterns of the sample, taking an average and then extrapolating to the overall event population. Locals must be discounted as they would artificially inflate the eventual figure. Thus presently, eligible numbers of attendees were those from outside the Cairns region including elsewhere in Queensland, interstate and international visitors.

Incomers represented 56% of the sample or 61,435 individuals (see Figure 3). Results were calculated from data in question 10 which asked attendees to estimate their current and likely future spending over the Cairns Festival period. Categories included meals, accommodation, event tickets, transport and so on (see Table 1 below).

**Table 1 Expenditure - Cairns Festival 2011 – Economic impact summary**

	<b>Overall attendees/spectators</b>	<b>Attendees/spectators NQ</b>	<b>Interstate</b>	<b>International</b>
Total number	110,000	110,000	110,000	110,000
Eligible number	61,435	14,133	15,774	31,548
Accommodation	14,330,848	914,294	3,224,024	10,461,054
Meals, food and drinks not included in accommodation	14,000,171	1,113,776	3,135,752	10,010,447
Event tickets	2,531,617	259,743	1,328,281	989,906
Other entertainment costs (not linked to the festival)	8,427,728	207,794	1,660,351	6,721,270
Transport in Cairns	3,217,709	145,456	1,420,756	1,712,474
Personal services (hairdressing, laundry, medical etc.)	1,102,531	80,209	331,650	709,117
Others (cinema, gifts, clothing, toiletries etc.)	5,252,074	498,706	2,860,428	1,989,479
Fuel and related for private transport	2,366,691	201,560	1,855,810	353,087
Cultural attractions like theatre, gallery, museum etc.	280,374	0	21,017	264,816
Other	2,896,516	664,941	0	2,280,356
<b>Total spend</b>	<b>54,406,259</b>	<b>4,086,479</b>	<b>15,838,070</b>	<b>35,492,006</b>
<b>Total spend attributable to the Cairns Festival</b>	<b>5,440,625</b>			

\*Minor differences appear between itemized categories in the last three columns when totalled and compared with the overall spend due to rounding.

Additionally, answers to questions 13-15 revealed that around 90% of non-locals would have visited Cairns irrespective of the event (see Figure 8). A discounted total

incorporating this data shows that the Cairns Festival generated around \$5.5 million of direct expenditure into the region.

Some projects also seek to capture the 'total economic impact' which include the above but also factor in 'secondary' and subsequent spending impacts. Accurate calculation of the total economic impact requires associated studies to have been undertaken looking at the interactions and interdependencies within the host economy. Often referred to as 'leakages', this allows the researcher to see how many subsequent rounds of expenditure take place before the spend leaks outside the host economy. Usually, a final 'multiplier' is calculated which then may be used in subsequent computations. In general, if a region is geographically small with a limited infrastructure and industry base, it will experience more leakages. Whilst detailed related information about the Cairns region is limited, it would be reasonable to suggest that notable leakages may exist given the above characteristics.

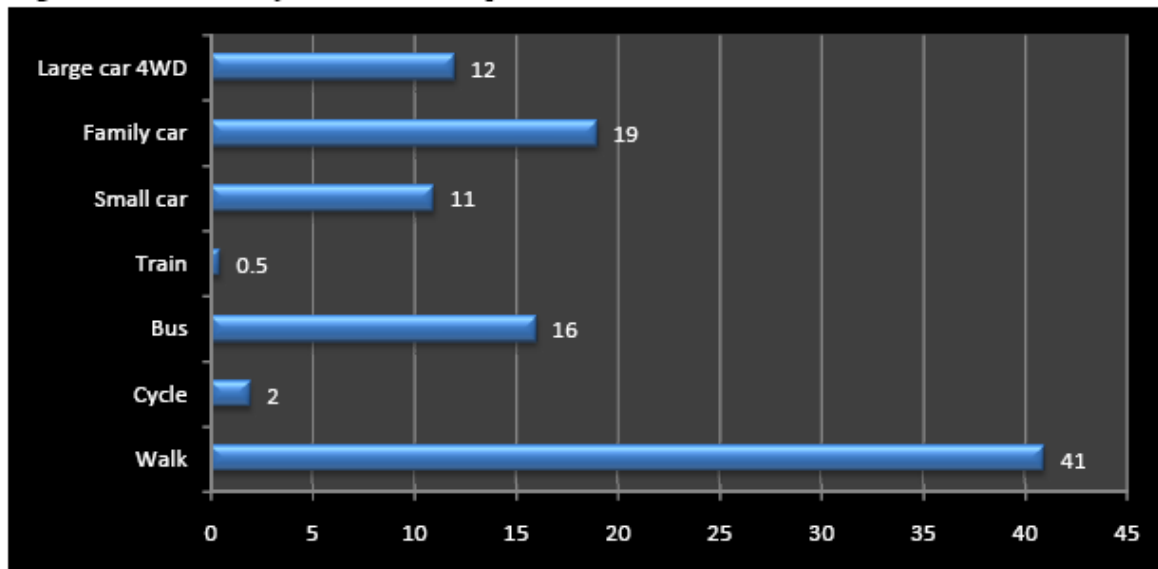
The next section of this report presents the research findings of the environmental impact of the Cairns Festival. Unlike evaluating economic and social impacts to assess the positive outcomes of the Cairns Festival, environmental assessment looks at the negative impacts that the event may have on the climate and resource depletion.

## 2.2 Environmental impact

Whilst the economics (and to a lesser extent social impacts) of events have well established models which are widely understood, attaching environmental values to them is relatively new. Moreover, the associated regulatory and legislative mechanisms at the time of writing is unclear. This makes the assessment of environmental impacts less straightforward. Nonetheless, as early as 1993, Faulkner pragmatically suggested several sources of useable environmental data including those from the event organizer, suppliers, venue managers and attendees, taking the form of energy and water use and waste generation. Unfortunately for the present study, information was difficult to obtain from all except event attendees. Therefore, the project is only able to present a partial picture of environmental impacts of the Cairns Festival. However, this will provide an adequate starting point from which comparison can be made and developed for future projects. In short, the survey provided environmental data about energy usage for transport to and from the Cairns Festival.

Figure 12 shows the mode of transport used to attend the Cairns Festival on the day of asking.

Figure 12 Today's mode of transport



An overwhelming single majority of people walked to the event. Of those who did not, most opted to use the family car and public transport (bus).

### 2.2.1 Distance travelled

To establish CO<sub>2</sub> emissions for all transport used by attendees it was necessary to identify distance travelled, mode of transport and an established model for an appropriate calculation. Respondents provided their departure postcodes on the day of asking. The number of people in each party was derived from the appropriate item in the survey (questions 11 and 12) and this information was entered into a cross tabulation. Two hundred and forty-one were identified. However, 102 were subtracted as they either walked or cycled to the festival; 139 remained.

The distance travelled by each attendee was calculated using postcodes. Each one was identified and plotted on a regional map. The distance from each postcode to a central event point in Cairns Central Business District was then measured. This approach only offers an estimation of distance given that the free events reported here were in different (but nearby) locations. Also Euclidian (straight line) distances were measured so there is a tendency to underestimate actual kilometres travelled. Finally, for interstate non-locals who included their home postcodes a likely distance of 2 kilometres was assumed. This seemed reasonable but clearly does not derive exact information. Nonetheless, this pragmatic approach was deemed appropriate given limited available resources. Transport emissions calculations were based on information provided by the Australian Greenhouse Office (2005) details of which are shown in the table below.

Table 2 Transport emission factors

Type of Transport	Kg CO2-e per passenger per km
Ride/walk	0.00
Tram	0.044
Rail, city	0.058
Rail, country	0.051
Bus, city	0.11
Bus, country	0.07
Air travel (in Australia)	0.20
For 1 passenger	
Hybrid	0.11
Small car	0.18
Family car	0.28
Large car, 4WD	0.37
For each additional passenger	0.01

Source: Australian Greenhouse Office (2005)

Each mode of transport has associated kilogram CO<sub>2</sub>-e per passenger per kilometre. Transport is categorized as either public or private. The latter category shows the different loadings for each mode plus a loading for each extra passenger.

When calculating CO<sub>2</sub> emissions for public transport, the per kilometre factor was multiplied by the distance travelled (kilometre). The number of people were then factored into the equation. The emissions for other means of transport were similarly calculated<sup>1</sup>. The results of both were summed. The table below shows that the 139 return trips produced around 4158 kilograms of CO<sub>2</sub> or 30 kilograms of CO<sub>2</sub> per person. The table also shows that the average return distance travelled was 100 kilometres.

Table 3 CO<sub>2</sub> estimation for the Cairns Festival 2011

Details	Results
Kilograms of CO <sub>2</sub>	4158kg
Usable responses from survey	139
Kilograms of CO <sub>2</sub> per person	30kg
Average return distance travelled to event	100km

Another way of understanding the above is through an 'energy' or 'ecological' footprint using calculations based on EPA Ecological Footprint Calculators (2005). This is a measurement of the anthropogenic demand upon ecological resources. These underscore the transport element of the Eco-footprint Calculator for Events (EPA Victoria, 2006).

<sup>1</sup> Normal practice for extra car passengers is to add 0.01kg/km to the CO<sub>2</sub>-e factor. This is then divided by the number of passengers multiplied by the per km factor and then multiplied by the number of km travelled. However here, total km travelled for all passengers was calculated and simply multiplied by the appropriate CO<sub>2</sub>-e factor. The resultant total CO<sub>2</sub>-e is likely to be marginally overstated.

To arrive at the score, total kilograms of CO<sub>2</sub> were multiplied by 2.68m<sup>2</sup> to convert the energy footprint into a measure of global square metres. This was then divided by 10,000 to give a measurement of the amount in global hectares. In turn this was divided by the number of cases (139) giving the number of global hectares per person. Next, the global hectares per person figure<sup>2</sup> was divided by the individual annual footprint allowance in hectares (1.9). This World Bio-capacity per person is the area alleged to supply resources and absorb waste sustainably (Sherwood, 2007). Next, the global hectares per person figure was divided by annual footprint allowance. This gave the transport footprint as a percentage of average annual footprint. These result are shown in Table 4.

Table 4 Transport footprint conversion

Details	Results
Kilograms of CO <sub>2</sub> from transport to event	4158
Energy footprint conversion <sup>3</sup>	2.68
Average global meter <sup>2</sup>	11143.44
Global hectares	1.11
Number of cases	139
Global hectares per person	.008
Estimated individual annual footprint in global hectares (World Bio Capacity) <sup>4</sup>	1.9
Percentage of annual footprint	0.42%

This table shows that the return trip to the Cairns Festival represented 0.42% of an individual's annual footprint allowance. This calculation effectively 'normalises' one of the elements of environmental data for comparison with other and future events.

The next section of the report shows the results of the social aspects of the Cairns Festival.

### 2.3 Social impact - satisfaction, quality and intent to return

Another key objective of the project was to measure attendee satisfaction with the Cairns Festival and service delivery overall. Additionally, other items are reported in this section due to their intuitive links with satisfaction including likelihood of returning to the Cairns Festival (and each individual event) in the future and how the festival compared to other events held since 2008.

Perceptions of satisfaction are crucial in providing a window into the social impact of such experiences. Staging an enjoyable event is a self-evident objective as it contributes to an individual's delight and pleasure. Additionally, it is likely to augment

<sup>2</sup> This is known as the world bio capacity per person and refers to the area needed to supply resources and assimilate waste without compromising the ability of those areas to continue to provide services (Wackernagel, *et al.*, 2005, p. 28)

<sup>3</sup> EPA Victoria (2005)

<sup>4</sup> EPA Victoria (2005)

the success of other related elements like enhancing or changing an individual's perceptions of a venue positively. Clearly, other benefits of satisfaction are bestowed upon event organizers who need the information to improve the experience for attendees in the future. Some of these items are controllable by the organizer but some are not.

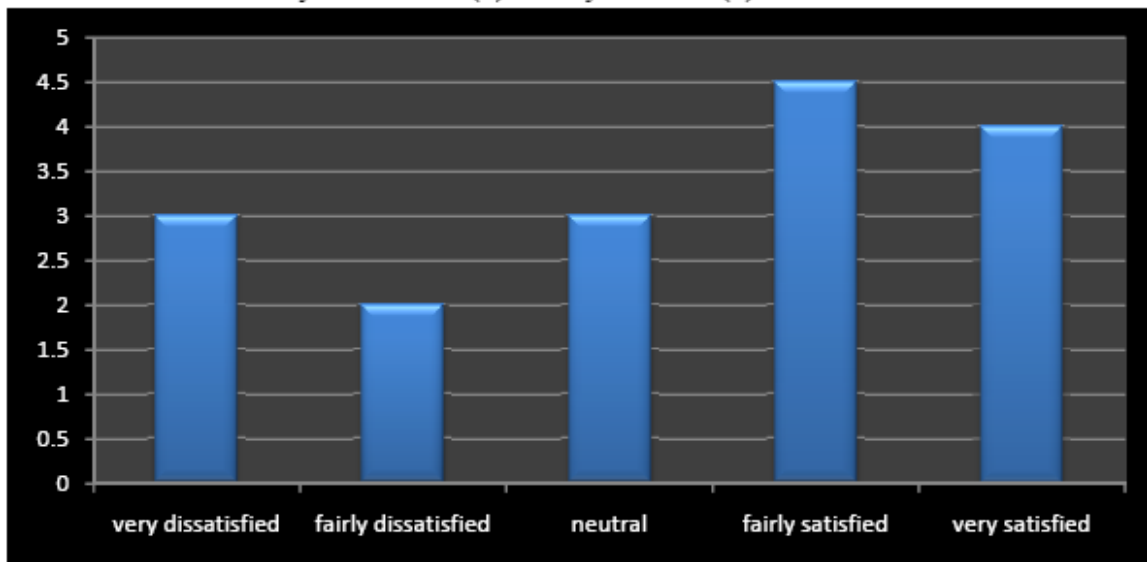
The current research included a comprehensive set of factors in order to give an holistic marker of what attendees might consider important. This section of the survey contained seven questions, two of which targeted specific events. Others concerned overall satisfaction with two open ended questions asking which elements of the festival were liked most and why and liked least and why. The latter, more qualitative approach, was important as free responses often highlight elements which may not have been included in the main body of closed quantitative questions.

The following section discusses how the Likert-type scale used to measure satisfaction was converted into a single comparable metric.

### 2.3.1 Measuring satisfaction

Often satisfaction scores are shown via bar charts or string diagrams. One hypothetical example is shown below.

Figure 13 A hypothetical example of mean satisfaction scores using a Likert-type scale of very dissatisfied (1) to very satisfied (5).



Whilst the information shows mean scores for each category, meaningful simple analysis is difficult. However, a single summary score allows the reader to see the key metric instantly and permits an understandable comparison with other elements of satisfaction and other events. A simple way of measuring satisfaction is using a scale attributing responses to positive and negative aspects. This allows a net satisfaction score to be developed and illustrated. Producing a score for satisfaction using the Likert-type scale means attributing a range from -2 (very dissatisfied) to +2 (very

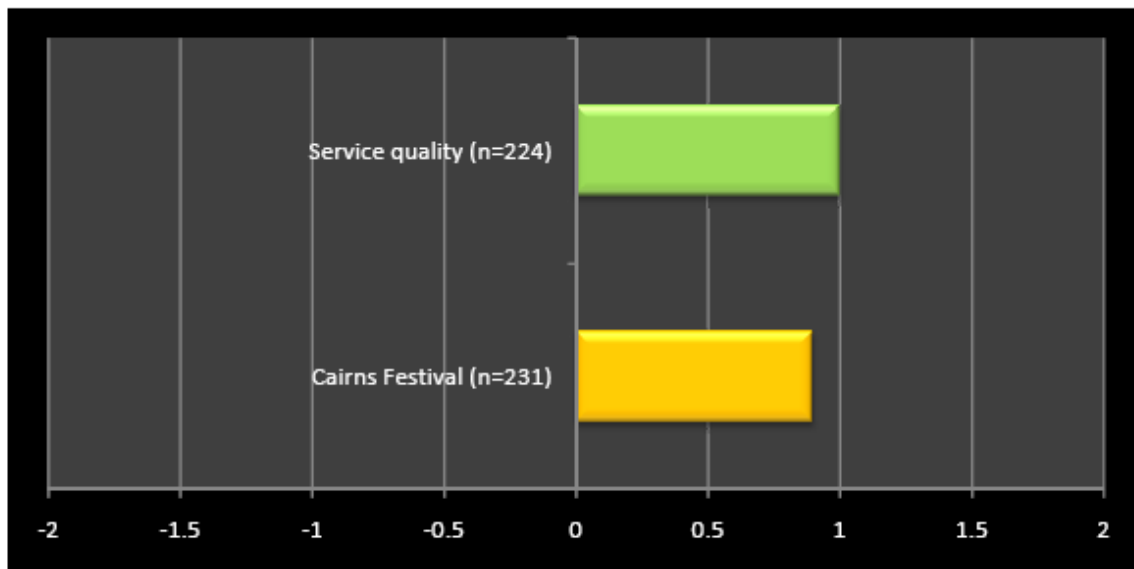
satisfied) with zero as neutral score. Equally this approach may be used for other response scales substituting very dissatisfied/very satisfied with very unlikely/very likely and so on<sup>5</sup>. These can further be enhanced by colour coding as shown in the figure below.

Figure 14 Colour codes for satisfaction net scores

Perception	Very dissatisfied	Fairly dissatisfied	Neutral	Fairly satisfied	Very satisfied
Score	-2	-1	0	+1	+2

Once the mean score for satisfaction is established a figure can be produced showing a directly comparable net satisfaction score. Illustrating the above is a figure showing mean responses to questions asking respondents to rate their overall satisfaction with the Cairns Festival and service quality (questions 28 and 29).

Figure 15 Overall satisfaction scores for Cairns Festival, service quality and individual events



Service quality for the whole event achieved a satisfactory or ‘satisfied’ status. Satisfaction with the overall event was considered better than the mean but did not quite achieve the same level as service quality. However, the difference between the two results is marginal.

A more qualitative approach was also used to gauge the overall attitudes of respondents to the Cairns Festival. The survey included two ‘free-response’ questions simply asking what elements of the festival were enjoyed both most and least (questions 32 and 33). These items revealed a number of informative themed opinions and some representative examples are shown below:

<sup>5</sup> A worked example is shown in Appendix 3 (p. 45).

*“What elements of the festival did you like most and why?”*

- “...like the free events and diversity of events. As a backpacker have limited funds so enjoyed the free events”.
- “Free film available to all, easily accessible location even for visitors”.
- “It has special characteristics that other festivals don't have and it has diversity in the programme”.
- “The free events were great for a family on a budget”.
- “...parade, music, colour, fun, happiness from floats”.
- “The parade, it highlighted parts of the community I didn't know existed”.

The positive aspects of the festival identified included notions of event and community diversity and the way it accounted for attendees budgetary constraints. Conversely, some representative negative comments were also forthcoming:

*“What elements of the festival did you like least and why?”*

- “The food stand near Fogarty Park had no vegetarian at all, nothing healthy and very unfriendly”.
- “...the parade - tacky, some bad music and themes”.
- “...parade took too long, spaces between floats too big”.
- “...toilets smell”.
- “there should be a few more comfy seats”.

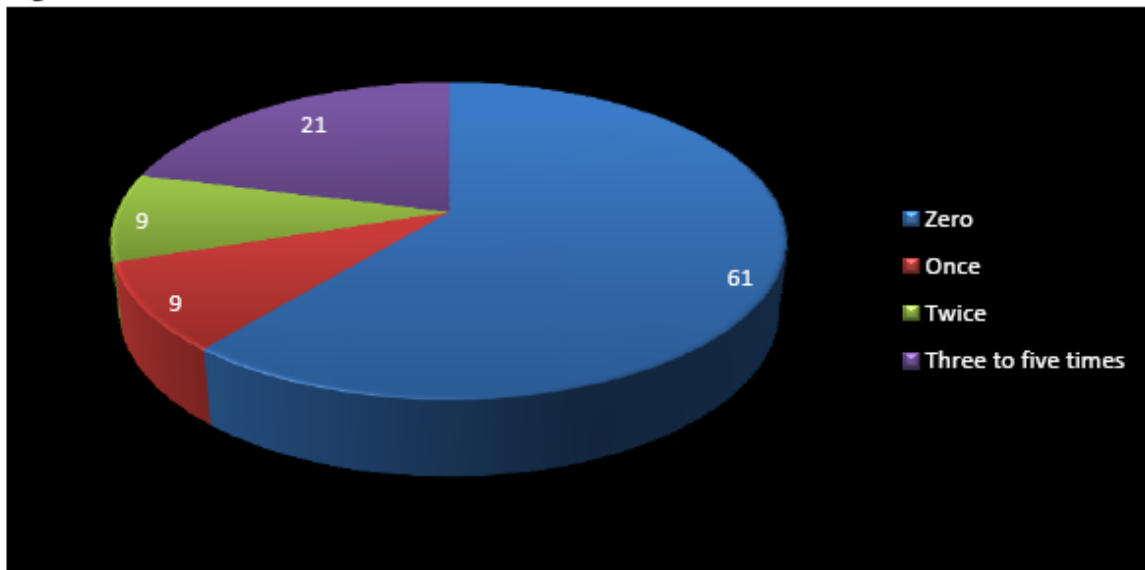
Clearly, some of these negative issues are beyond the control of the festival organizer such as ‘...unfriendly...’ food vendors. However, other issues are addressable like basic facilities including seating and public conveniences.

### **2.3.2 Measuring prior attendance and intent to return**

Experiences like the Cairns Festival can have a positive impact on people’s intent to attend future events. Whether this actually translates into action is questionable as it depends on other issues like availability, family commitments, development initiatives to promote and support the future event and so on. It is probably unrealistic to expect events alone to do much more than inspire. It should then be up to relevant authorities to build on the positivity engendered by the occasion. However, the potential of an experience to impact on behaviour remains important and should therefore be measured.

Figure 16 shows how many times the sample had attended the Cairns Festival in previous years.

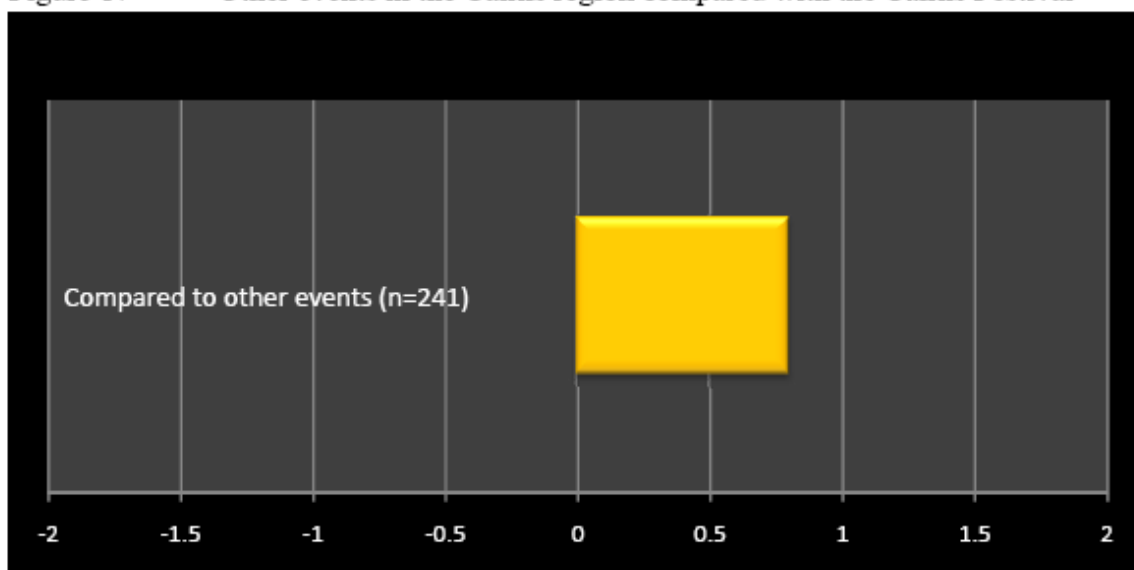
Figure 16 Prior attendance



Sixty-one percent of people had not attended the event before. The smallest proportions included those who had visited either once or twice. It is therefore crucial for the event to be organised 'right first time' as most people have no previous experience (positive or negative) on which to draw when deciding to patronize the festival.

Respondents were also asked whether they had attended any other events in the Cairns region since 2008. Results also showed that only 32 percent of respondents did so. Figure 17 shows how the Cairns Festival was compared with others attended using a five-point Likert-type scale ranging from 'much worse' to 'much better'. The net score appears below.

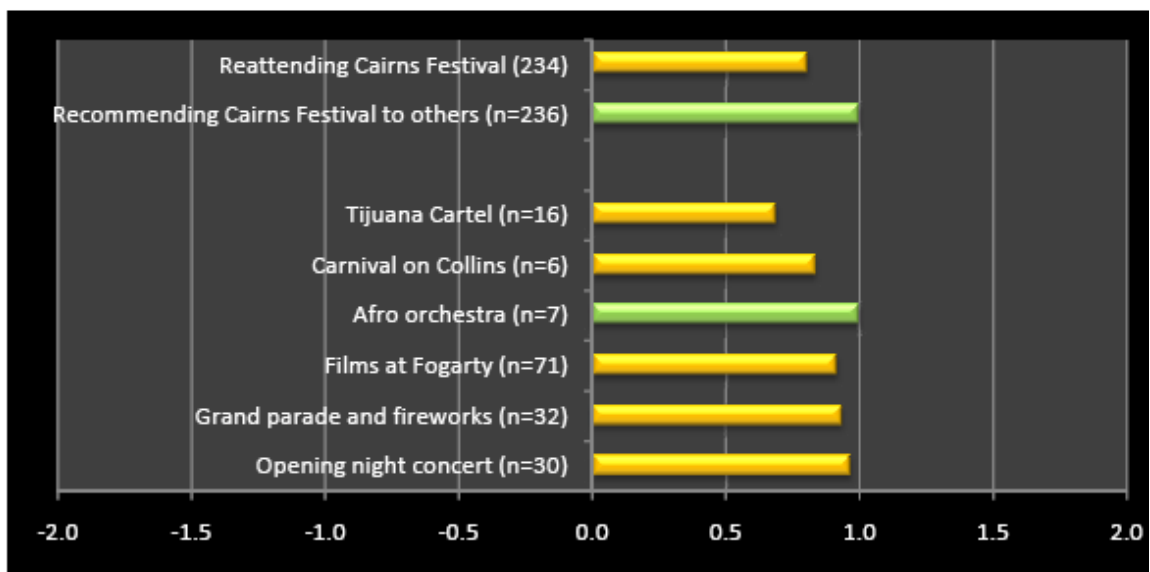
Figure 17 Other events in the Cairns region compared with the Cairns Festival



Whilst above the mean, the Cairns Festival is regarded as a little above 'about the same' as other events attended.

There are many question statements that could be used to help identify intent to return, however, the current survey contained two 'global' items. Balancing the need for a comprehensive understanding of attitudes with pragmatic issues like survey length and response rates, it was felt appropriate to use such a direct enquiry. The questions asked about the likelihood of attending another Cairns Festival (question 30) and whether the whole event would be recommended to others (question 31). The results are shown in the figure below. Like other figures the scores range from by -2 (very unlikely) to 2 (very likely).

Figure 18 Net mean scores for re-attendance, recommendation overall and for each event



The mean score for re-attending the Cairns Festival is above zero (undecided) but falls short of 1 (likely). Overall, the Cairns festival is likely to be recommended to others.

This result contrasts with that for each individual event except the Afro orchestra. A possible explanation is the increased sample size (n=236) or even that the Gestalt<sup>6</sup> has elevated the holistic perspective favourably. Although the means scores for each event are greater than zero, only the Afro orchestra would be recommended to others as shown by the green bar. All other events were scored between 'neutral' (0) and marginally below 'likely' (1). Small sample sizes confound clear conclusions however it is remarkable that almost all individual events and likelihood of re-attendance are amber. This suggests they are in need of potential improvement as attendees are less than satisfied with each one. However positively, all recommendations shown below 1 (likely) are marginal and are at least higher than the mean. More detailed satisfaction scores for each individual event are shown in Appendix 2 (p. 29).

<sup>6</sup> A set of things such as a person's thoughts and experiences considered as a whole and regarded as amounting to more than the sum of its parts.

Whilst predicting future behaviour is problematic, repeat visitation is more likely if the Cairns Festival experience was enjoyed by the attendees, service quality was high and recommendations to others was favourably reported. Intuitively these items would appear to be related and predictors of future behaviour/attendance. Indeed, a basic regression analysis reveals this to be the case in the table below. This is shown in tables 5 and 6.

Table 5 Multiple regression of satisfaction, service quality, and recommendation against re-attending: model summary

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of estimate
1	.735 (a)	.540	.543	.712

(a) Predictors: (constant), satis1, recom2, servq

Table 6 Multiple regression of satisfaction, service quality, and recommendation against re-attending: ANOVA (b)

Model	Sum of squares	df	Mean square	F	Sig.
Regression	128.823	3	41.274	81.453	.000
Residual	105.399	208	.507		
Total	229.222	211			

(a) Predictors: (constant), satis1, recom2, servq

(b) Dependant variable: atten1

One way of interpreting the above is using the square of R (coefficient of determination). This is to say that around 54 percent of the variation in re-attending can be explained by the corresponding variation in the other variables. Or, the remaining 46 percent of the variation in the dependant variable (re-attending a future event) is due to chance or the presence of other variables. Whilst this may seem a notable proportion, the relationship between the variables ( $R = .735$ ) and its probability measured by the ANOVA  $F$  test is 0.000 which makes it significant. This means that satisfaction with the event, service quality overall and the likelihood of recommendation to others are strong predictors of re-attending the festival.

### 3. Summary and recommendations

Essentially, this study sought to design an instrument to measure the economic, environmental and social impacts of the Cairns Festival 2011. A resulting intercept survey was administered for the duration of the festival targeting six free events with a total sample size of 266. A convenience sampling approach was used in order to gather as many responses as possible given resource constraints. This standard method is used commonly for similar events elsewhere. However, an attempt was made to introduce

an element of randomness into the process by informing research volunteers to interview only every fifth person they encountered whilst collecting data. Conclusions drawn from this project, together with related recommendations are discussed in the following section.

### 3.1 The Cairns Festival impacts assessment

Findings suggest that direct income into the Cairns region for the duration of the event was a little under \$55m. This is the expenditure of incomers into the region based on estimated total attendee numbers of 110,000 (Holowacz, 2011). However, it is likely that an element of 'double counting' is evident in this estimate given the nature of non-ticketed free events. The actual figure is probably somewhat less significant depending on assumptions made. According to SERI (2010) repeat visitors may account for up to 25% of the total population under consideration. The figure of \$55m does not include sponsorships, organizer financial input and other sources of income. This information was unavailable at the time of writing. Furthermore, around 90% of non-locals said they would have visited Cairns irrespective of the festival. This means that an appropriate proportion of the total direct income into Cairns must be discounted leaving a final figure of \$5.5m.

Environmental impacts of the Cairns Festival were only partially calculated because data from utility suppliers and waste management firms was difficult to obtain. However, attendee information regarding their use of CO<sub>2</sub>-e transport remains valuable and will be comparable with similar data collected in the future. Most people used their family car or public transport (bus) to travel to the event on the day of asking but the calculations are based on use of all CO<sub>2</sub>-e transport. Using Sherwood's (2007) methodology combined with that of the Australian Greenhouse Office (2005) and EPA Ecological Footprint Calculators (2006) each person contributed 30kg of CO<sub>2</sub> via their mode of transport. This may also be expressed as a percentage of a person's annual footprint allowance. In the present case this amounted to 0.42%. Both calculations effectively 'normalise' one of the elements of environmental data for comparison with other and future events.

Social impacts through attitude and satisfaction scores were subjected to a simple conversion calculation which allowed each to give one overall metric. This approach was chosen as it permitted simple and meaningful comparison between survey items. Findings from this section of the survey suggested that most people were barely satisfied with both the festival overall, service quality and most individual events. It is imperative that these scores are improved through scrutiny of factors within the event organizer's control. Furthermore, although the festival compared favourably with other events in the region people had attended its mean score fell short of 'satisfied'. Similarly, most said they would recommend the festival to others and re-attend but the attitudes barely reached the 'likely' category. Given that the largest single category of

attendees (61%) had not attended the festival before it is important that the organizing team 'get it right first time' so that quality is assured and re-attendance optimized.

Results also suggest that most people were keen to attend the festival for up to four days which was consistent with their duration of stay in Cairns with most not exceeding 5 to 10 nights. This may also reflect a lack of enthusiasm for events later in the festival schedule although this is difficult to confirm given that many people may not have arrived in Cairns until a few days into the event.

Thrifty visitors also were apparent in the findings with 40% opting for hostel accommodation and only 9% choosing more expensive hotels or motels. This is consistent with the age range of the sample with the largest category being 20 to 29 followed by a smaller but broadly even distribution amongst 30 to 39, 40 to 49 and 50 to 59 year-olds. A theme of preferred free events emerged from the data which also lends support to the above summation.

Most people attended the festival with either family or with friends and attended for reasons of having fun, enjoyment and socialising with friends. These motivations would appear consistent with the intent of the event which targets the younger element of society and families. However, with current demographic predictions perhaps this already apparent bracket (30 to 59+) may need further development. This might also have an impact on some of the individual events making them more appropriate for the older generation.

The largest single category of respondents first heard about the Cairns festival by word of mouth (29%) which is not surprising given that the largest segment of attendees were locals. Twenty-one percent learned of the event via brochures with only 12% through television. Surprisingly, internet, radio and newspapers were a relatively less effective way of marketing the festival.

Reflecting these findings, the following points are worth considering for future Cairns Festival events:

- Link future research with other broader regional economic studies to identify the total economic impact through scrutiny of interactions and interdependencies within the Cairns economy. This would facilitate the calculation of an accurate regional multiplier;
- Consult accommodation suppliers for occupation rates during future festivals to help substantiate economic estimates;
- Closer liaison with the event organizer, suppliers, venue managers, utility providers and waste management companies for more comprehensive data collection around environmental impacts. The aim would be to create an holistic perspective of sustainability which could then be marketed to promote a 'zero footprint' event (or similar);

- Institute a working group to revisit and scrutinize individual events and the overall festival to improve current perceptions beyond 'barely satisfied' or 'barely likely to recommend' where appropriate;
- Augment management of public facilities and screening of vendors to ensure a more comprehensive range of products offered;
- Revisit existing events for design, content and scheduling in line with current and emerging demographic preferences;
- Establish a more effective way of marketing the Cairns Festival to non-locals within Queensland and Australia using the channels which include internet (and social networking sites) linking with TTNQ, Tourism Australia, QTIC and local/national accommodation providers and better use of local/national radio and television. Advertising the festival over a wider geographical area (beyond local) would help to increase non-local attendance and boost direct income into the region;
- Schedule the festival during times of peak tourism to maximize the potential of patronage. This is not predicated on boosting direct income via the event exclusively, rather to increase goodwill through non-local and international visitation raising the profile of Cairns as a prime tourist destination;
- Design a better way of estimating attendee numbers. Whilst difficult for non-ticketed events, a more helpful way of counting attendees could be devised through compulsory but free 'flyers' distributed at designated entrances. Events could be configured so that each has an entry 'funnel' to enable this;
- A 360 degree approach to future festival-related research is required as attendee surveys only capture a limited amount of usable data. These could include intercept surveys, focus groups, electronic surveys, and telephone surveys targeting attendees, members of the local community, performers, exhibitors and all appropriate others;
- Include additional social and cultural items in the research enquiring about personal quality of life, impacts on the community, sense of community, pride in community and so on. This form of enquiry should not be limited to attendees but extended to the local community and other key stakeholders;
- Provide volunteers with hand held VCRs to shoot footage of the event in order to build a more accurate picture of attendance especially for events which do not lend themselves to funnelled entrance points (see above); and
- Increase data collection with more trained volunteers to maximize sample size.

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## Appendix 1 – Intercept survey

1. Gender?

Male  Female

---

2. Age?

Under 20  20 - 29  30 - 39  40 - 49  50 - 59  60 and above

---

3. How would you describe your occupation?

Sales  Manager  Professional  Technical  Self-employed  Labourer  Community worker  Retired  Student  Unemployed

---

4. What is your highest level of formal education?

Primary  Secondary  Trade  Certificate/Diploma  Degree  Postgraduate

---

5. What is your usual postcode (please state)?

\_\_\_\_\_

---

6. What region is this in?

Cairns  Other North Queensland besides Cairns  Other state/territory  International

---

7. How many nights will you spend in Cairns (please state)? - locals do not answer this question

\_\_\_\_\_

---

8. How many days or part days do you expect to attend the Cairns festival (please state)?

\_\_\_\_\_

---

9. Are you here:

On your own  With family  With friends  With family and friends

---

10. This question identifies how much you have spent or will spend during your visit to Cairns. Please include all spending made by you and all members of your family/group. Remember to include all payments made by cheques and credit cards. Include your best estimates if you are unsure of the exact amounts - locals do not answer this question

Accommodation \_\_\_\_\_

Meals, food and drinks not included in your accommodation bill \_\_\_\_\_

Event tickets \_\_\_\_\_

Other entertainment costs (e.g. if going to other tourist attractions not linked to the festival) \_\_\_\_\_

Transport in Cairns \_\_\_\_\_

Personal services (e.g. hairdressing, laundry, medical etc) \_\_\_\_\_

Any other expenditures (e.g. cinema, gifts, souvenirs, clothing, toiletries, groceries) \_\_\_\_\_

Fuel and related for private transport \_\_\_\_\_

Cultural attractions such as theatre, gallery or museum \_\_\_\_\_

Other (please state) \_\_\_\_\_

---

11. How many adults are included in these expenditure estimates (please state)? - locals do not answer this question

\_\_\_\_\_

---

12. How many dependent children are included in these expenditure estimates (please state)? - locals do not answer this question

\_\_\_\_\_

---

13. Would you have visited Cairns this year had the Cairns Festival not been held? - locals do not answer this question

Yes  No

14. If you were going to visit Cairns in any case this year, was this visit because of the festival? - locals do not answer this question

yes  No

15. Since you were visiting Cairns in any case at this time of year, did you extend your stay because of the Cairns Festival? - locals do not answer this question

Yes  No

16. How did you travel to Cairns?

Car or other private motor vehicle  Train  Bus  Plane

17. What form of transport did you use to travel to the Cairns Festival today?

Walk  Cycle  Public transport  Bus  Train  Small car  Family car  Large car (4WC)

18. What is the main type of accommodation you will be using in Cairns?

Friends and relatives  Hotel/Motel  Hostel  Apartment  Other

19. How many nights do you estimate (please state)?

\_\_\_\_\_

20. Please estimate how many kilometers you have travelled to get to Cairns for this festival (please state).

\_\_\_\_\_

21. What was the postcode or suburb of your point of departure for the festival (please state)?

\_\_\_\_\_

»»

22. What was the main reason for your attendance at the Cairns Festival?

Socialise with family and friends  Support family and friends involved in the event  General support of the community event  Enjoyment/relaxation  Accompany partner  Meet new people  Fun and excitement  Experience something different  Other (please state)

23. How did you first find out about the Cairns Festival?

TV  Radio  Internet  Word of Mouth  Newspapers  Brochures  Newsletters or other subscription material  Family/friends  Been before

24. Prior to this occasion, how many times have you attended the Cairns Festival?

Zero  once  Twice  Three to five  More than five

25. Please state which event you are currently attending.....

This questions asks about your experience for this particular event.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
This event has modern-looking facilities and equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This event has physical facilities which are visually appealing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The staff working at this event are appropriately groomed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pamphlet, leaflets etc associated with this event are visually appealing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scheduled time lines in the program were kept to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When visitors to the event have problems, the event organizers show a genuine concern in solving them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This event delivers its service right the first time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This event provides its services when it promises to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This event insists on error-free services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff are able to tell visitors exactly when services will be provided	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff give prompt services to visitors to the event	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Staff are always willing to help visitors at this event	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff are never too busy to respond to visitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff behaviour instils confidence in visitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visitors to this event feel safe in their transactions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff at this event are continuously courteous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff at this event are knowledgeable and can answer visitors' questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff at this event give visitors individualized attention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The scheduling of individual events is convenient for visitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff employed at this overall event give visitors personal attention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This event has visitors' best interests at heart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff at this event understand visitor's specific needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This event provides a rich and dynamic program of creative and artistic performances, workshops and activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This event has a positive social impact on the Cairns region	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. Listed below are seven features pertaining to this event and the service it offers. We would like to know how important each of these features is to you when you evaluate the events service quality.

	Most important	Important	Neither important nor non-important	Marginal importance	Least important
The appearance of the event's physical facilities (eg. flyers, equipment, seating etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The event's ability to perform the promised service dependably and accurately	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The event's willingness to help visitors and provide prompt service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The knowledge and courtesy of the event's staff and their ability to convey confidence and trust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The caring, individualized attention the event provides to visitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The event's consideration of the natural environment in its delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The artistic merit of the event program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. How likely are you to recommend this event to someone you know?

Very Unlikely	Unlikely	Undecided	Likely	Very Likely
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. How satisfied are you with the Cairns Festival overall?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. Overall, how was the level of service quality you received whilst attending the Cairns festival?

Very Bad	Bad	Neither Good nor Bad	Good	Very Good
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. How likely are you to attend another Cairns Festival

Very Unlikely	Unlikely	Undecided	Likely	Very Likely
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

31. Overall, how likely are you recommend the Cairns Festival to someone you know?

Very Unlikely	Unlikely	Undecided	Likely	Very Likely
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. What elements of the festival did you like most and why?

33. What elements of the festival did you like least and why?

34. Since 2008 have you attended other events in the Cairns region, e.g. Port Douglas Carnivale, Festival Cairns etc?

Yes

No

35. If 'yes' how does the overall quality of this festival compare with these other events you have attended?

Much Worse

Worse

About the Same

Better

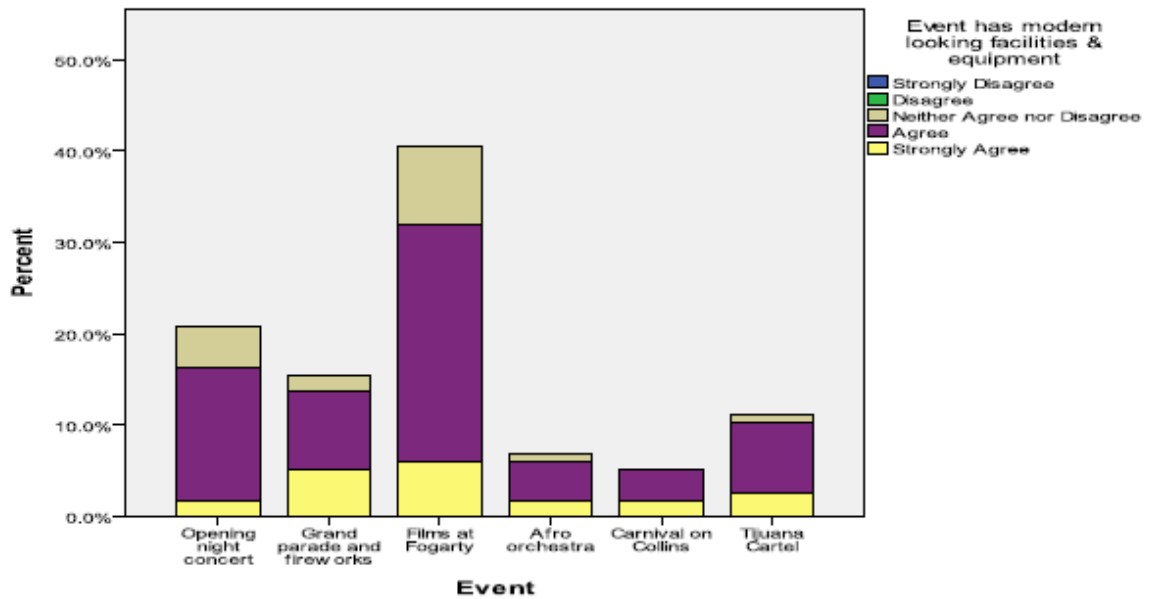
Much Better

>>

**Appendix 2 – Satisfaction scores for individual events**

The figures below shows responses to a series of event-specific statements along a five-point scale ranging from strongly disagree to strongly agree for each of the six free events targeted.

**Figure 19** The event has modern-looking facilities



**Figure 20** The event has physical facilities which are visually appealing

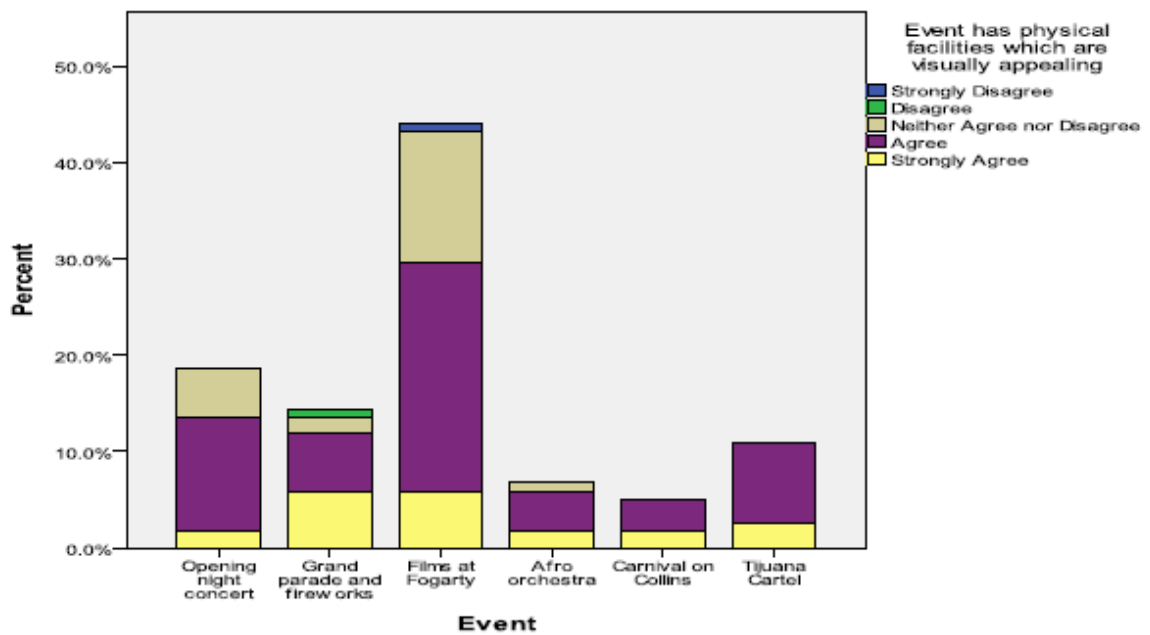


Figure 21 The staff working at this event are appropriately groomed

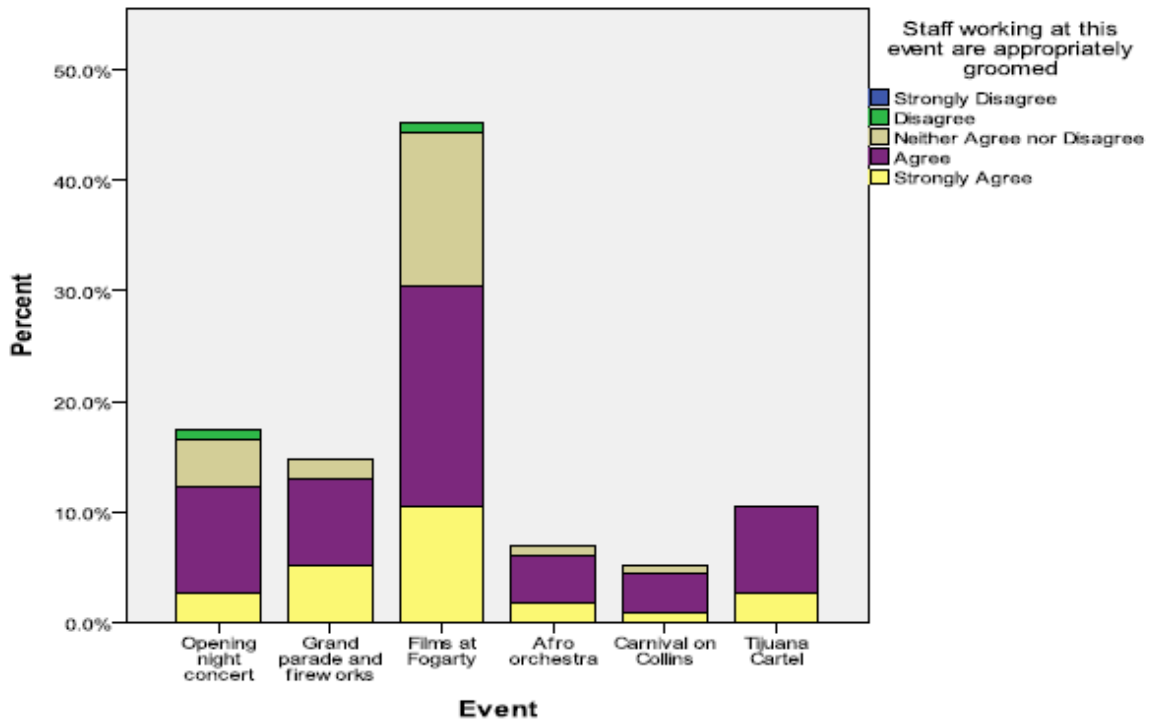


Figure 22 Pamphlets, leaflets etc associated with this event are visually appealing

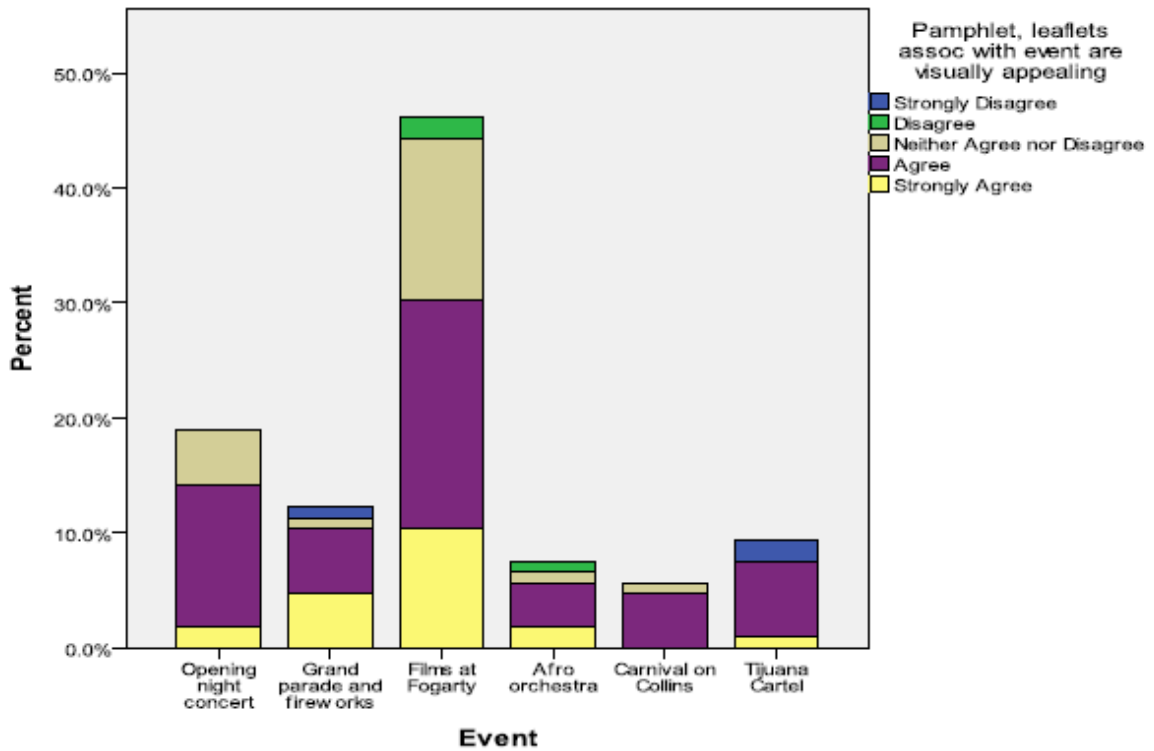


Figure 23 Scheduled time lines in the program were kept to

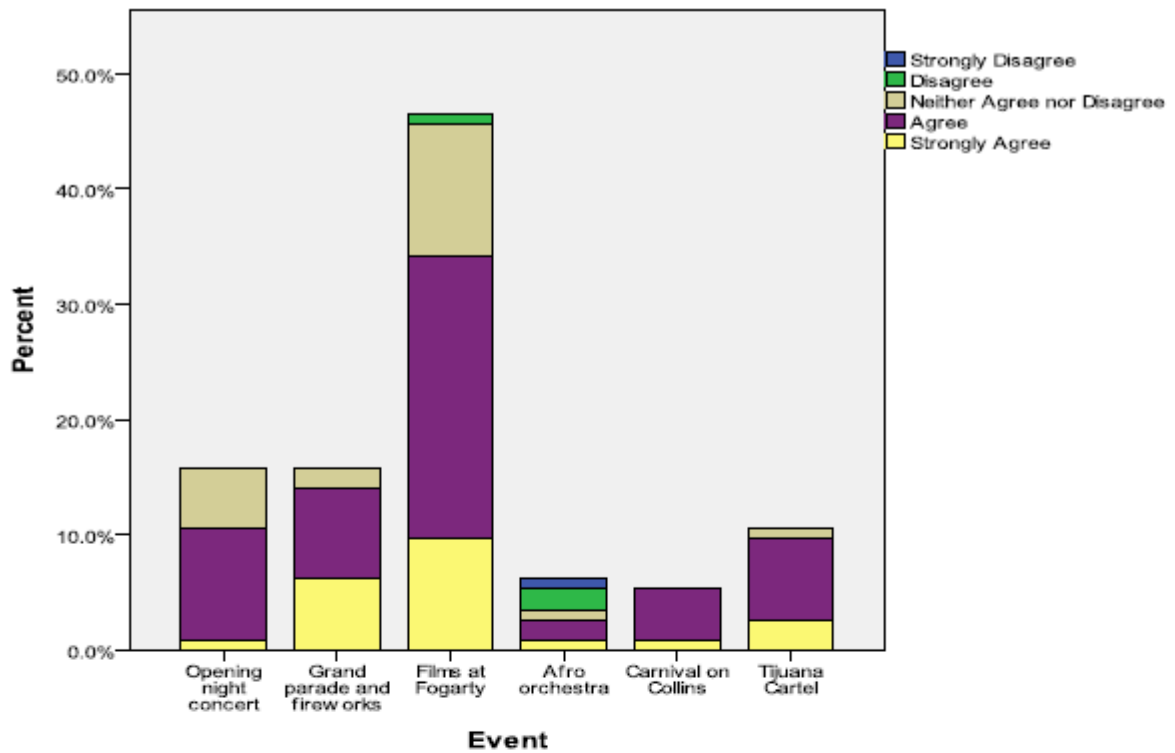


Figure 24 When visitors to the event have problems the event organizers show genuine concern

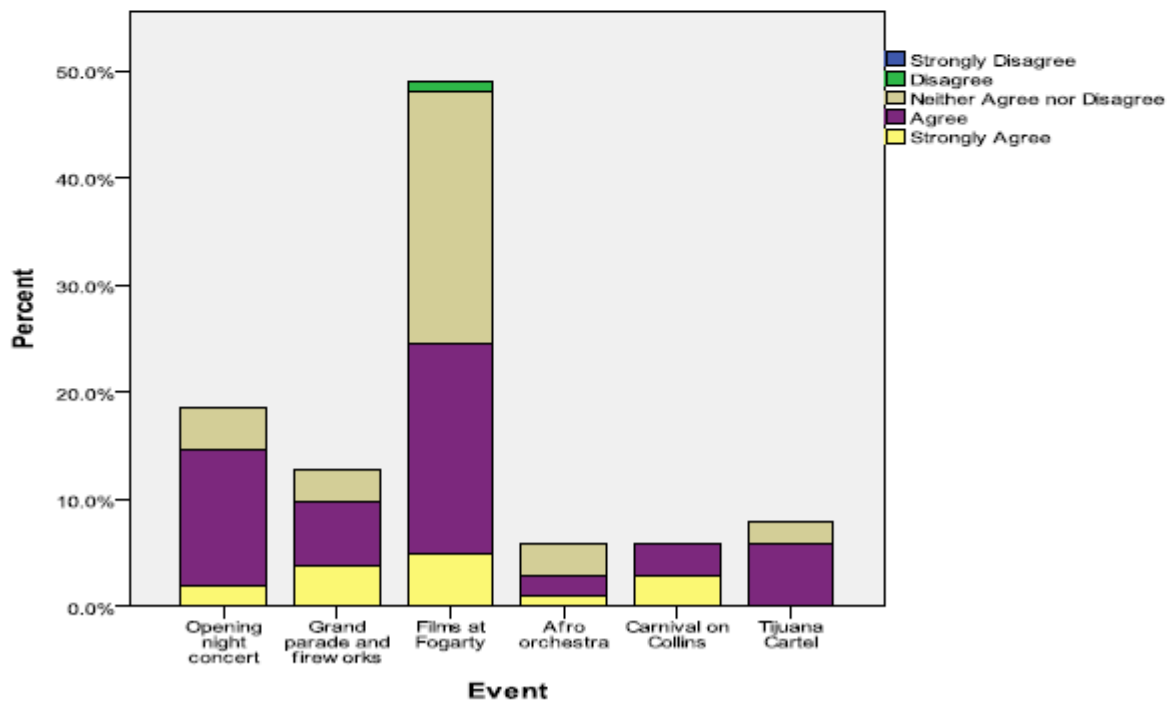


Figure 25 This event delivers its service right first time

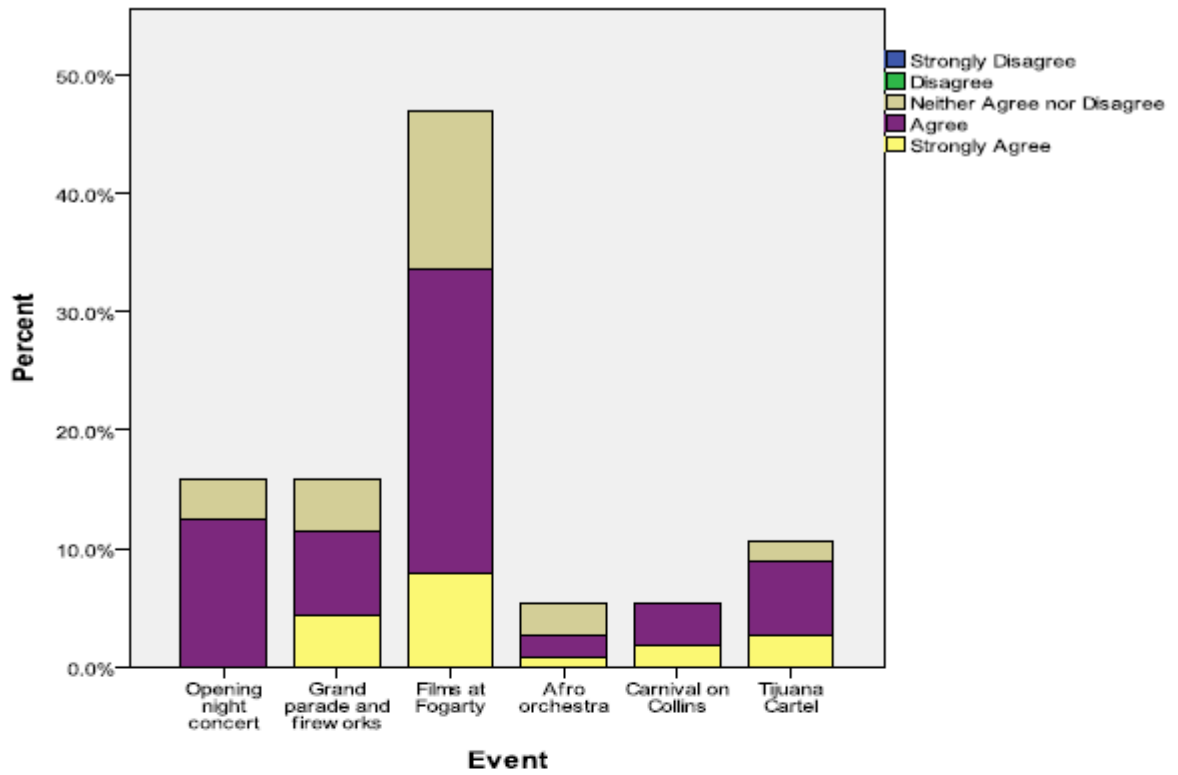


Figure 26 This event provides its services when it promises to

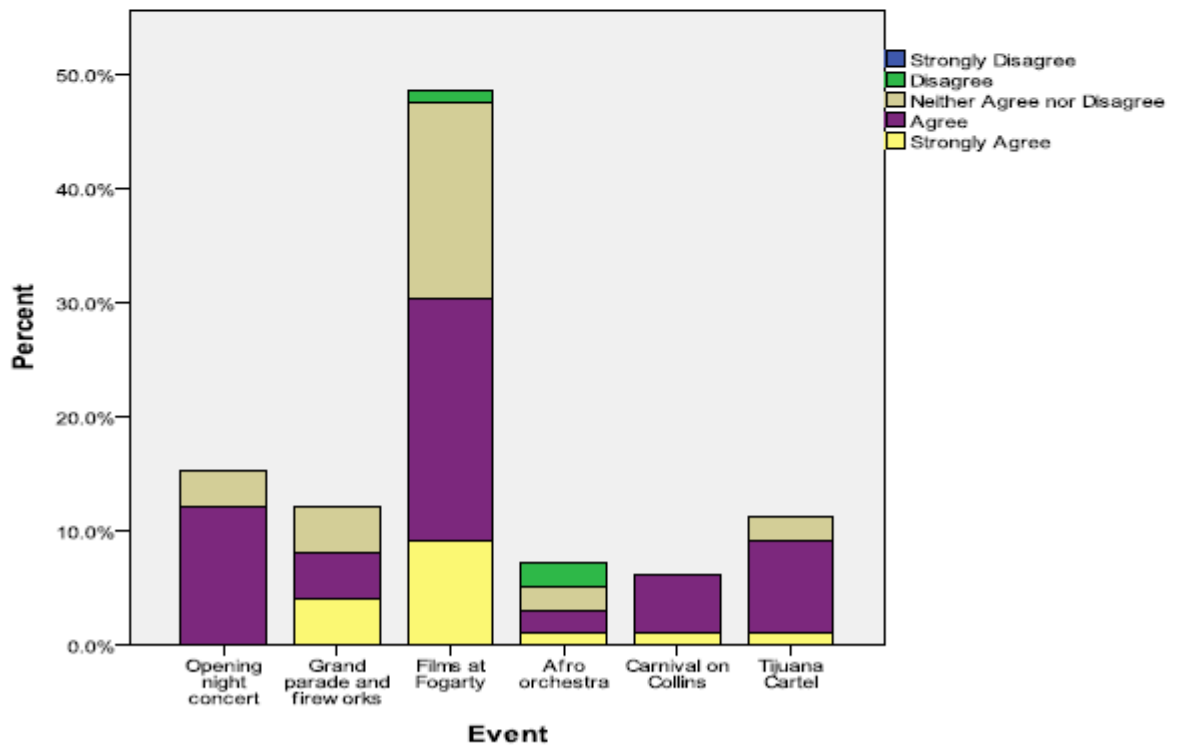


Figure 27 This event insists on error-free services

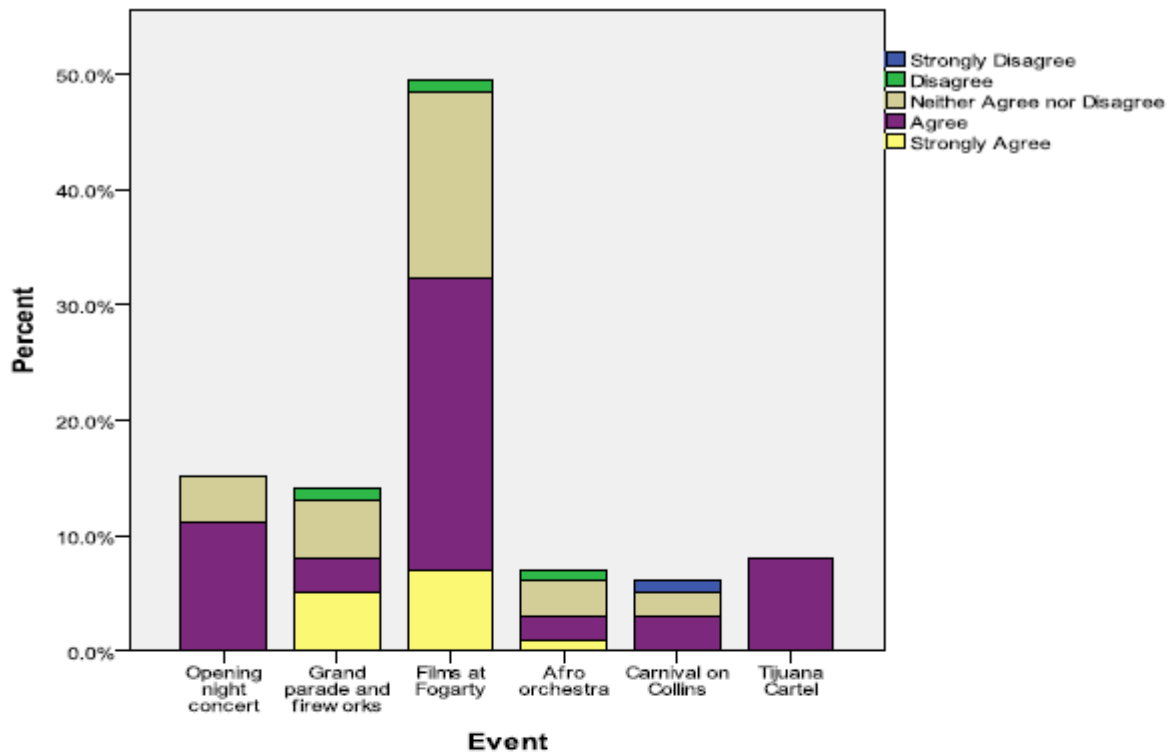


Figure 28 Staff are able to tell visitors exactly when services will be provided

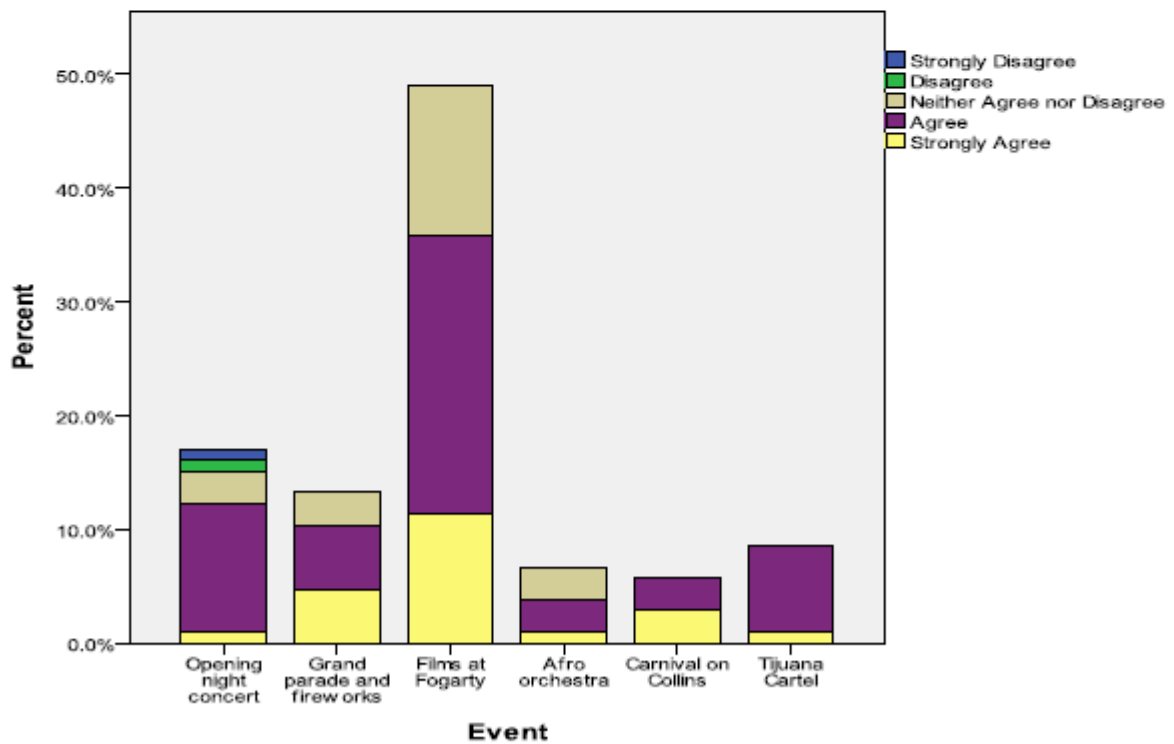


Figure 29 Staff give prompt services to visitors at the event

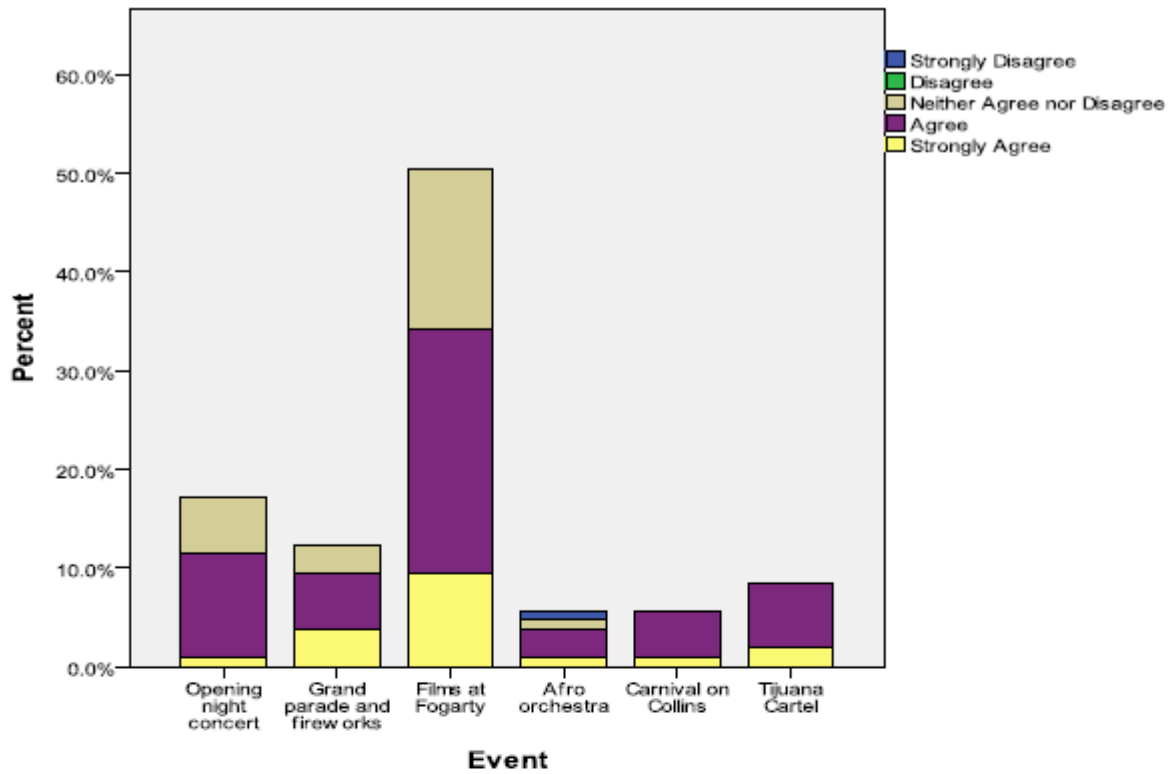


Figure 30 Staff are always willing to help visitors at this event

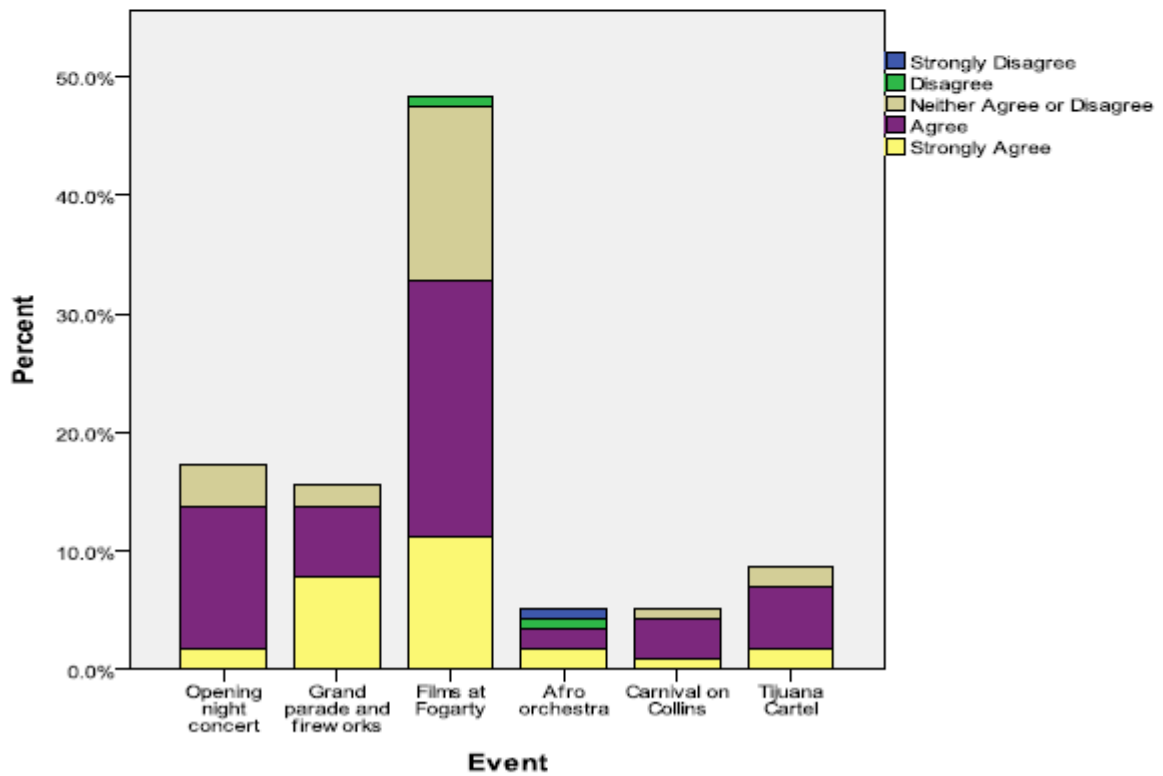


Figure 31 Staff are never too busy to respond to visitors

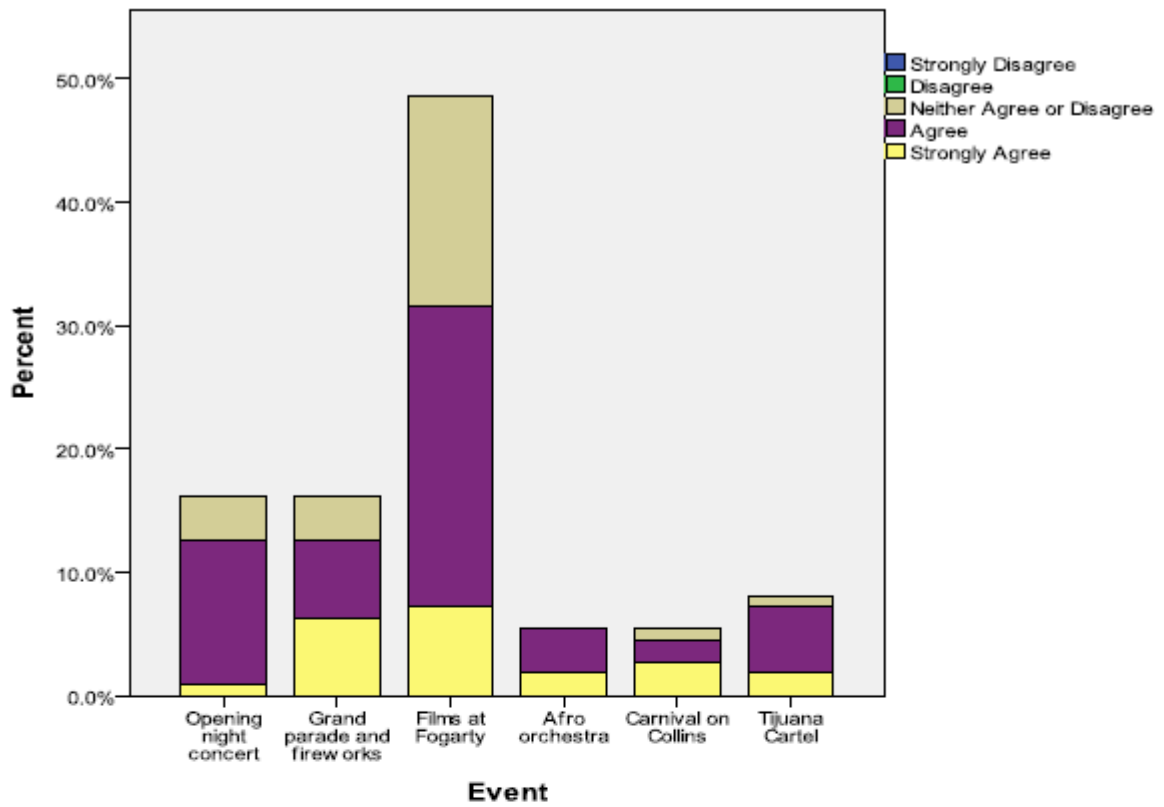


Figure 32 Staff behaviour instils confidence in visitors

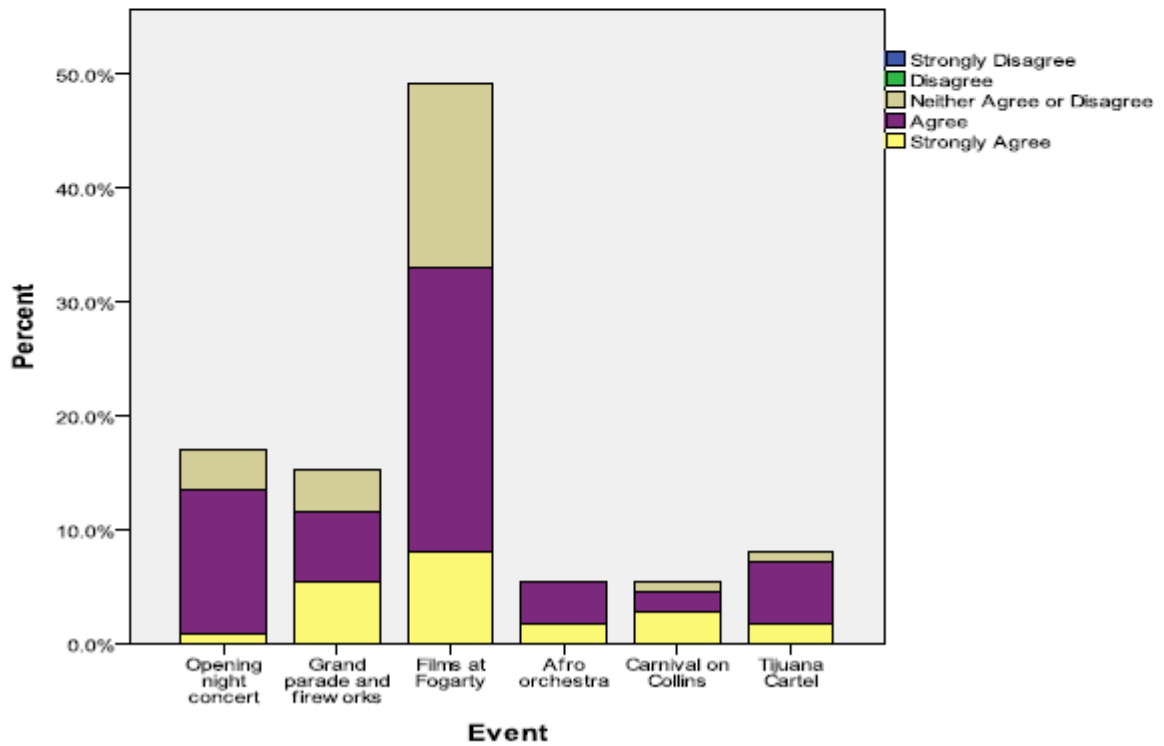


Figure 33 Visitors to this event feel safe in their transactions

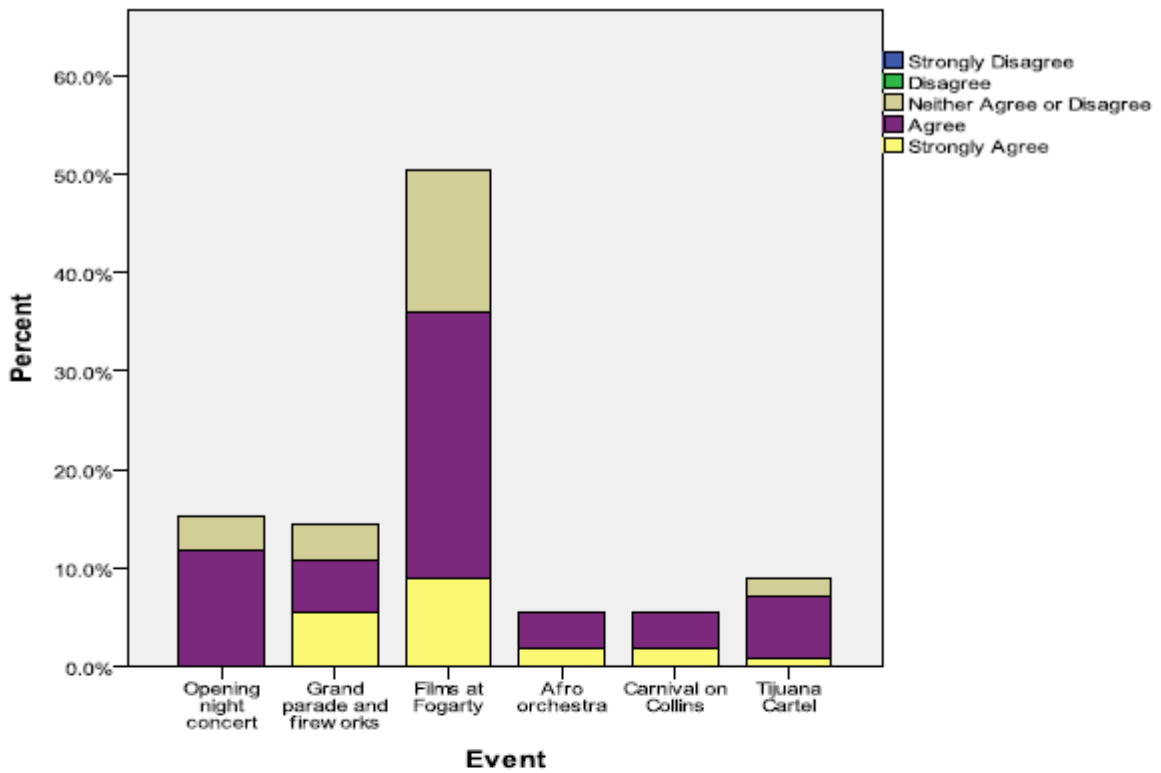


Figure 34 Staff at this event are continuously courteous

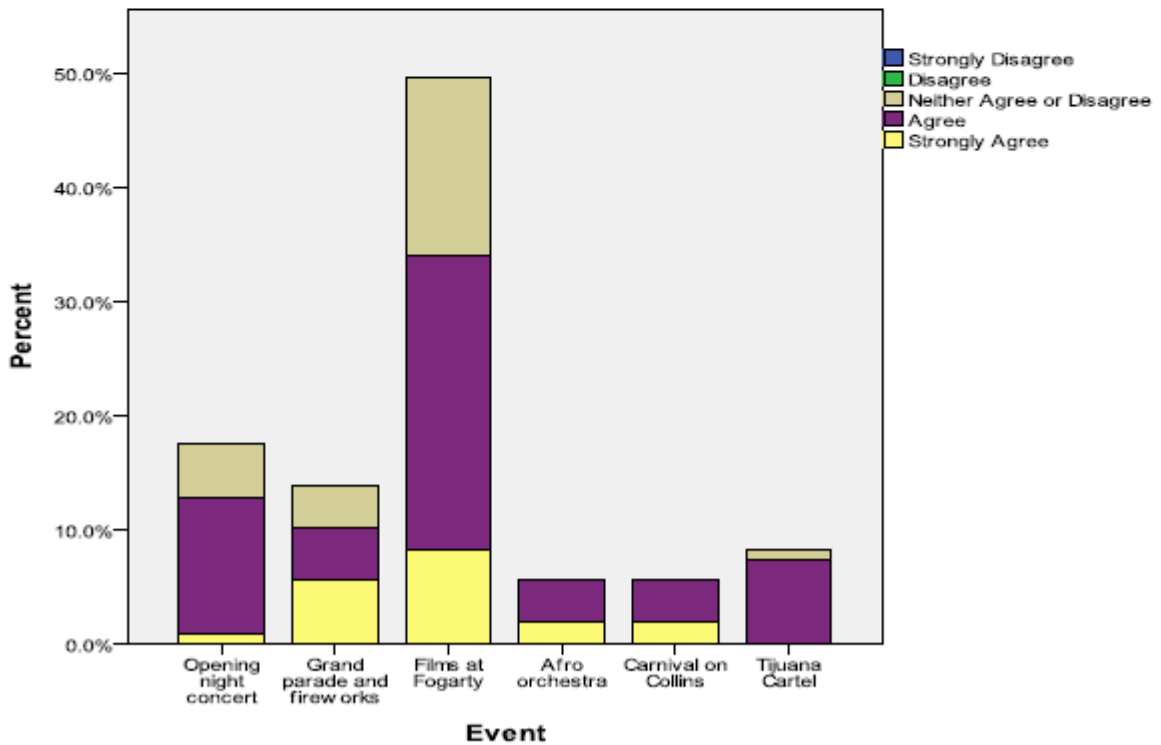


Figure 35 Staff at this event are knowledgeable and can answer questions

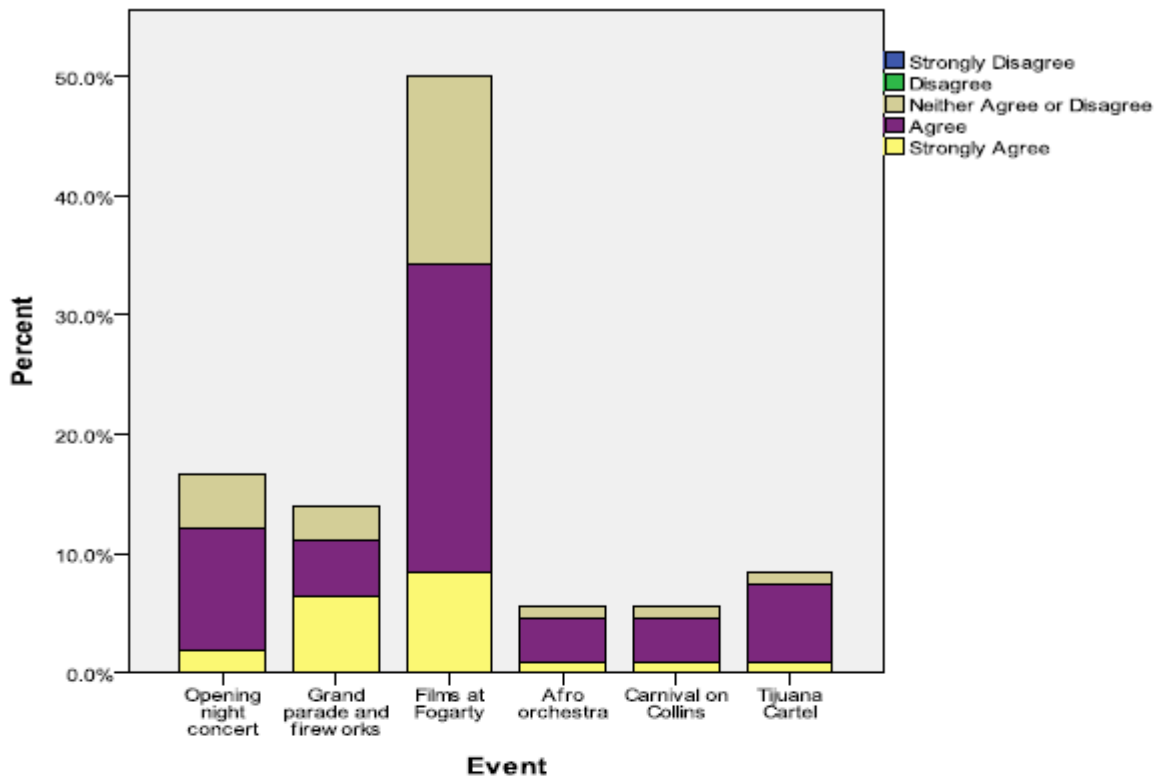


Figure 36 Staff at this event give visitors individualized attention

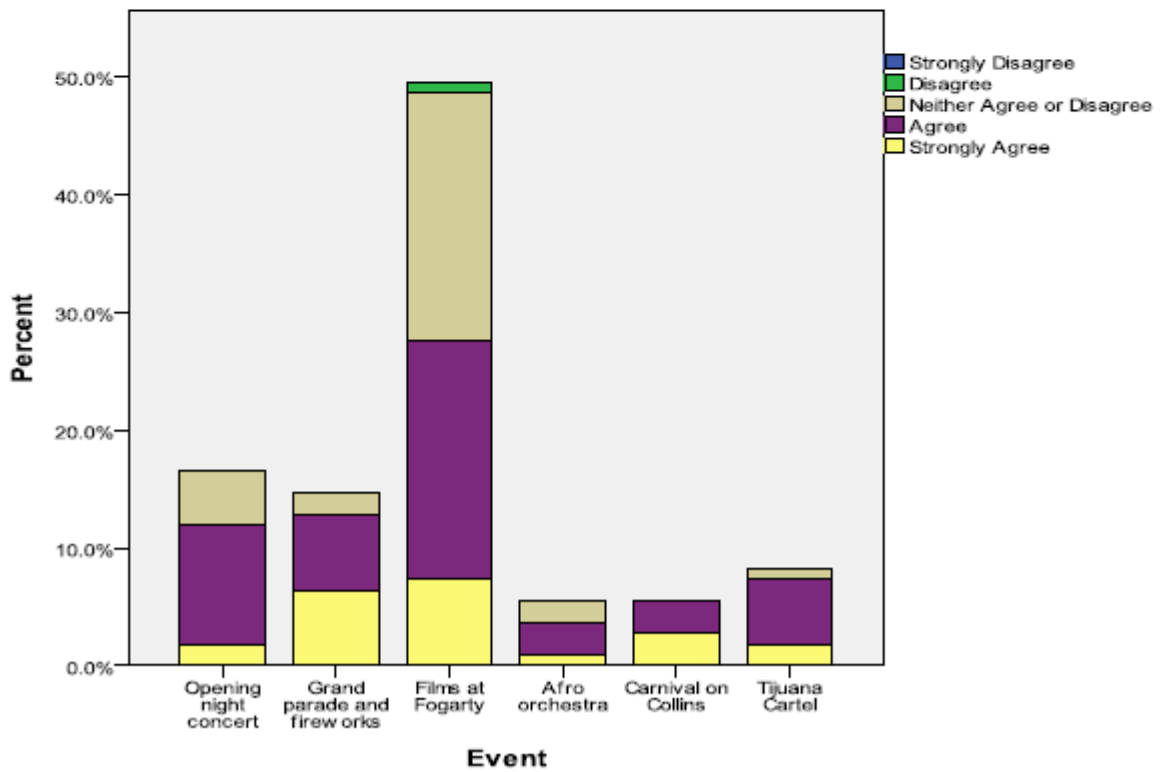


Figure 37 The scheduling of individual events is convenient for visitors

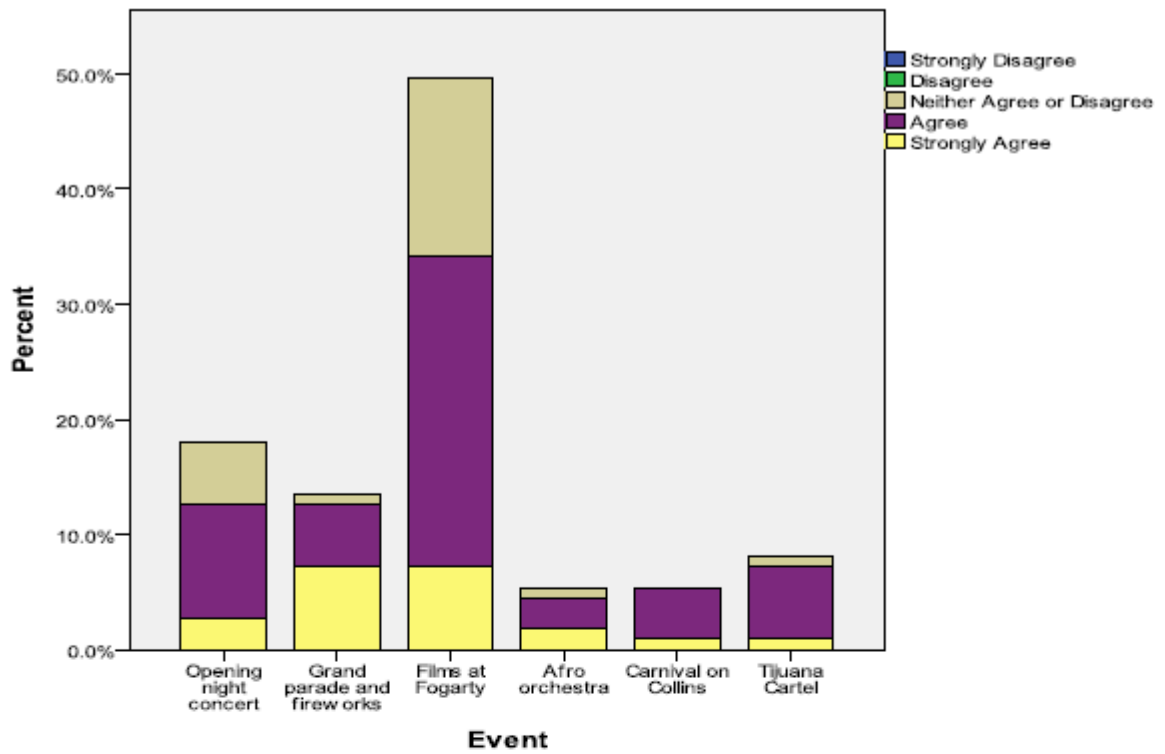


Figure 38 Staff employed at this event give visitors personal attention

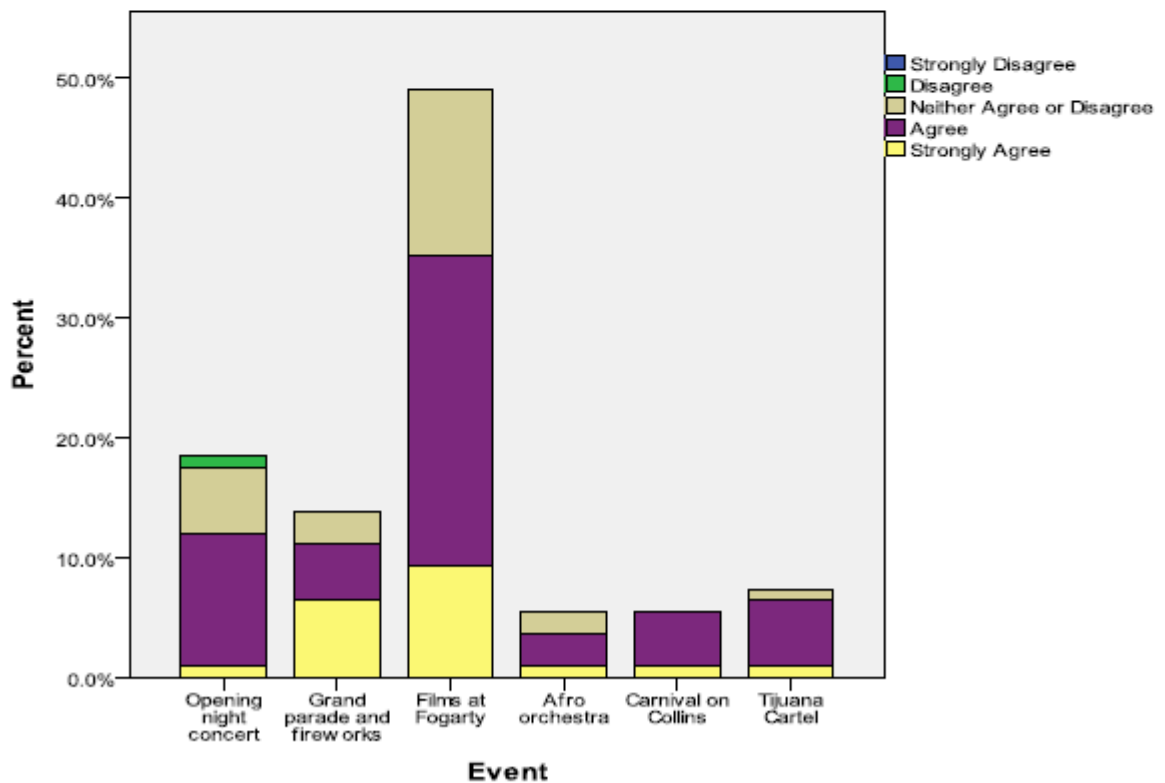


Figure 39 This event has visitors' best interests at heart

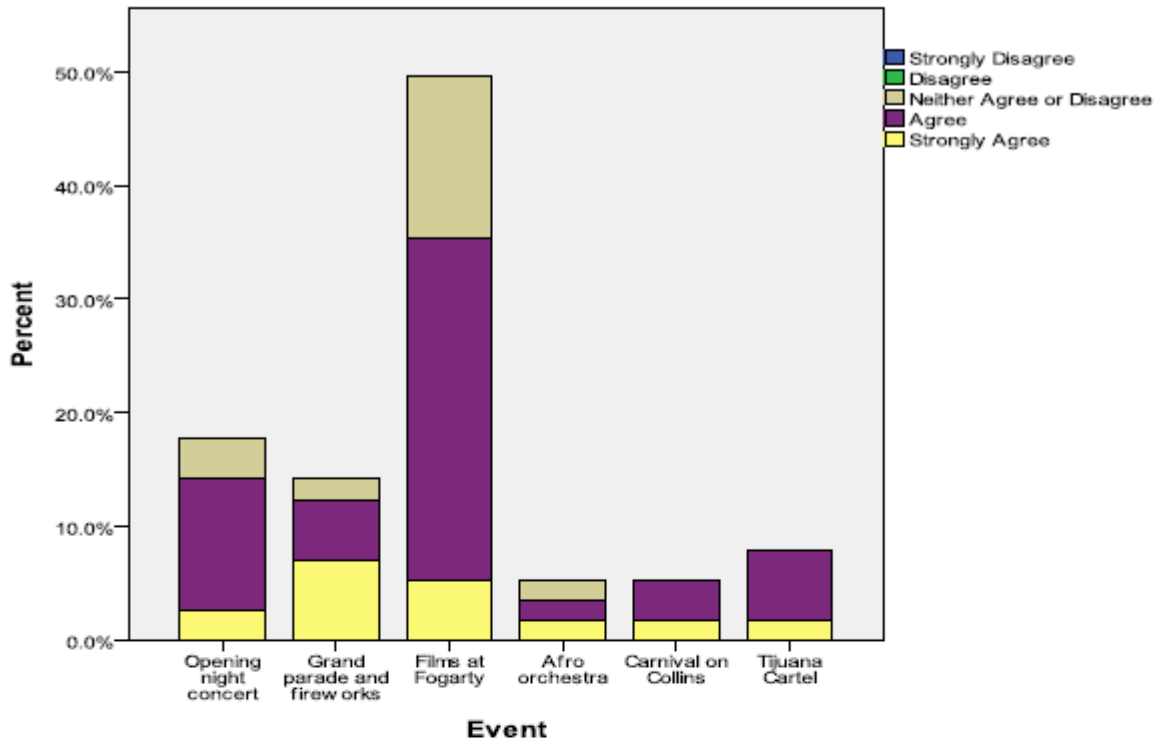


Figure 40 Staff at this event understand visitors' specific needs

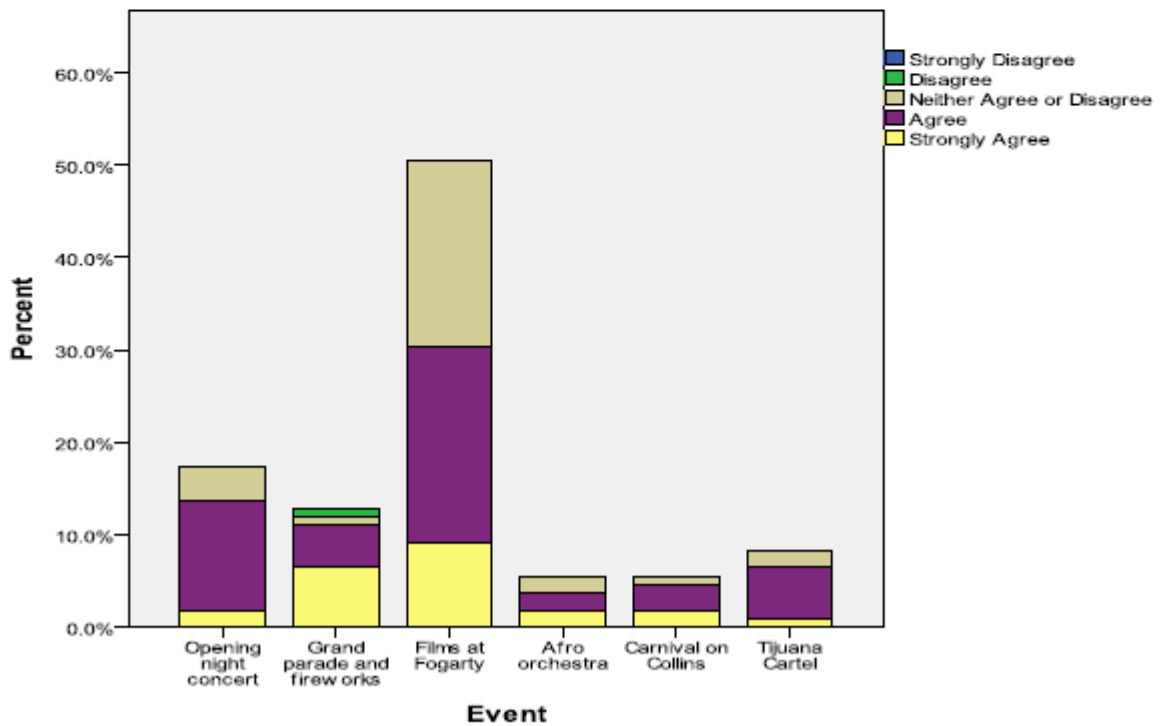


Figure 41 This event provides a rich and dynamic program of creative and artistic performances, workshops and activities

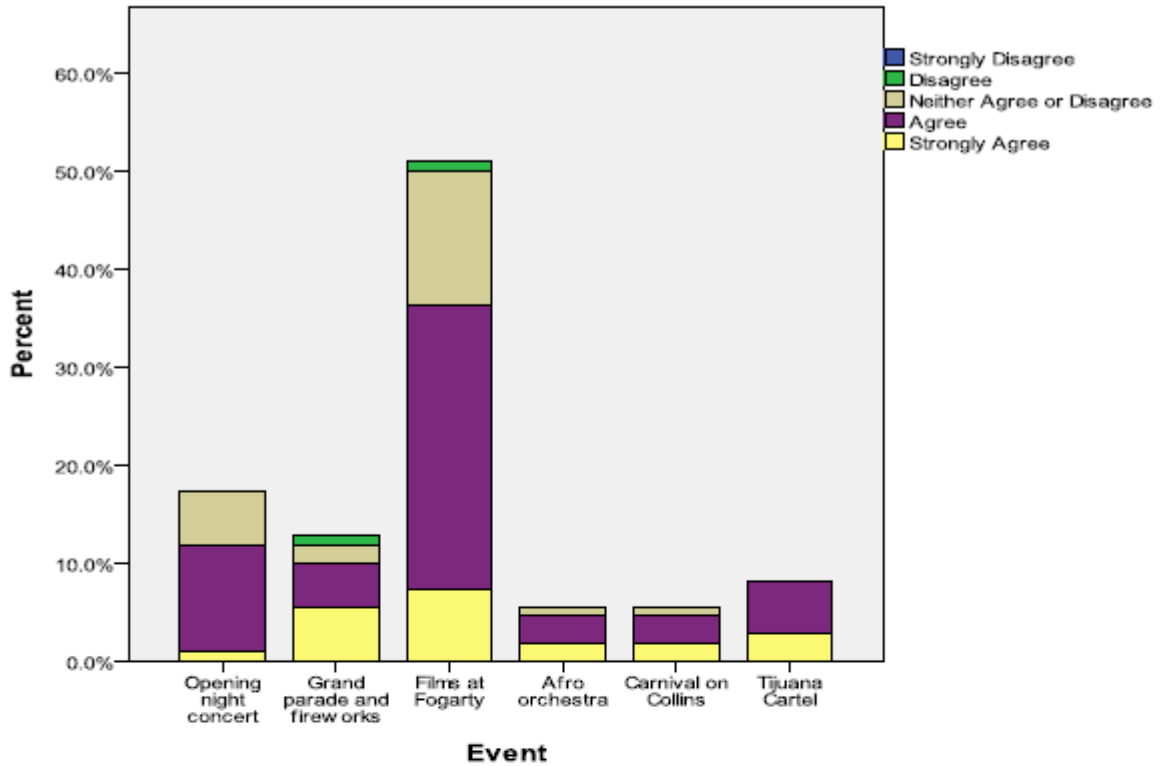
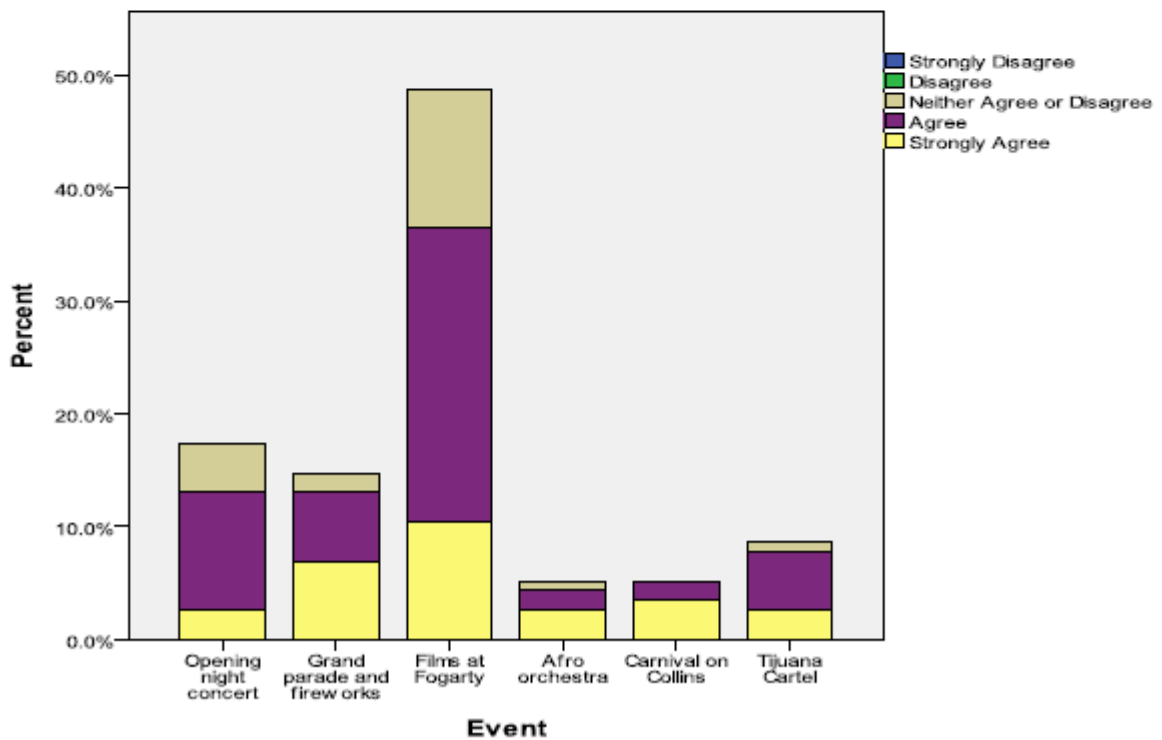


Figure 42 This event has a positive social impact on the Cairns region



The following figures show responses to seven features pertaining to the six events appearing above. Once again attendees respond to statements along a five-point scale ranging from most to least important.

Figure 43 The appearance of the event’s physical facilities, e.g. flyers, equipment, seating etc.

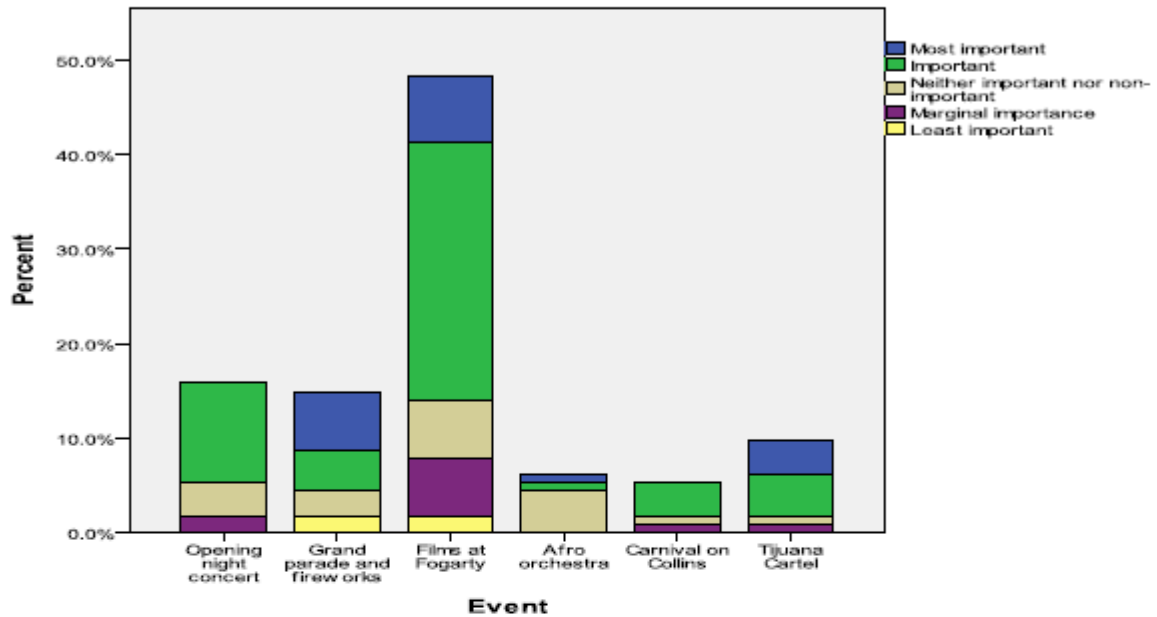


Figure 44 The event’s ability to perform the promised service dependably and accurately

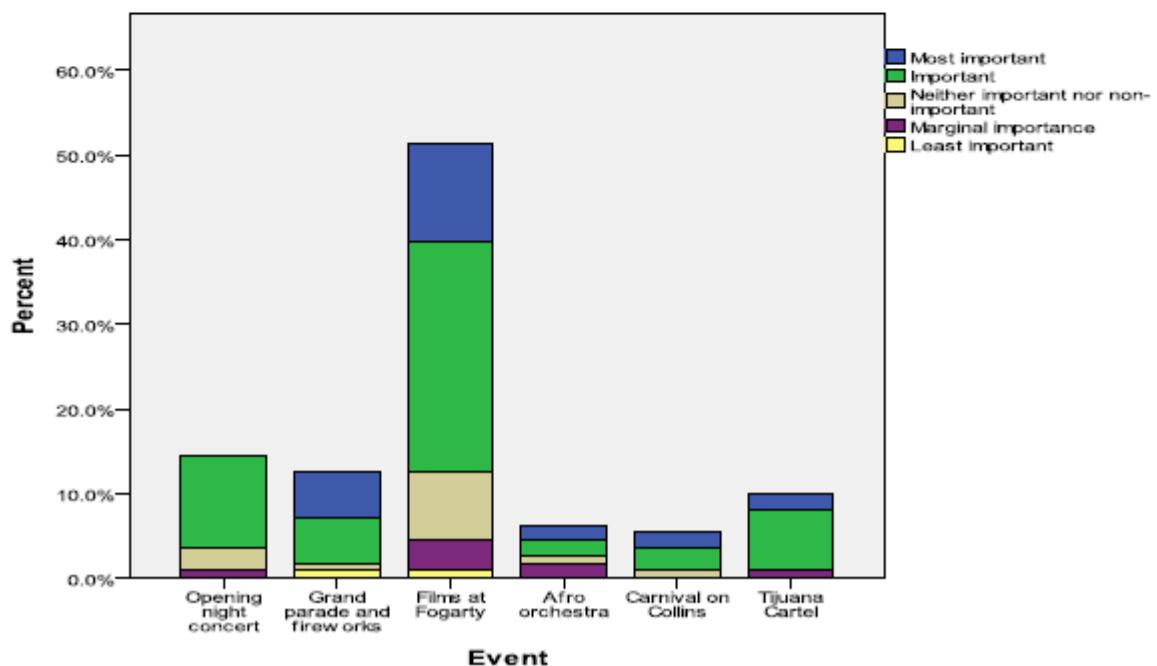


Figure 45 The event’s willingness to help visitors and provide prompt service

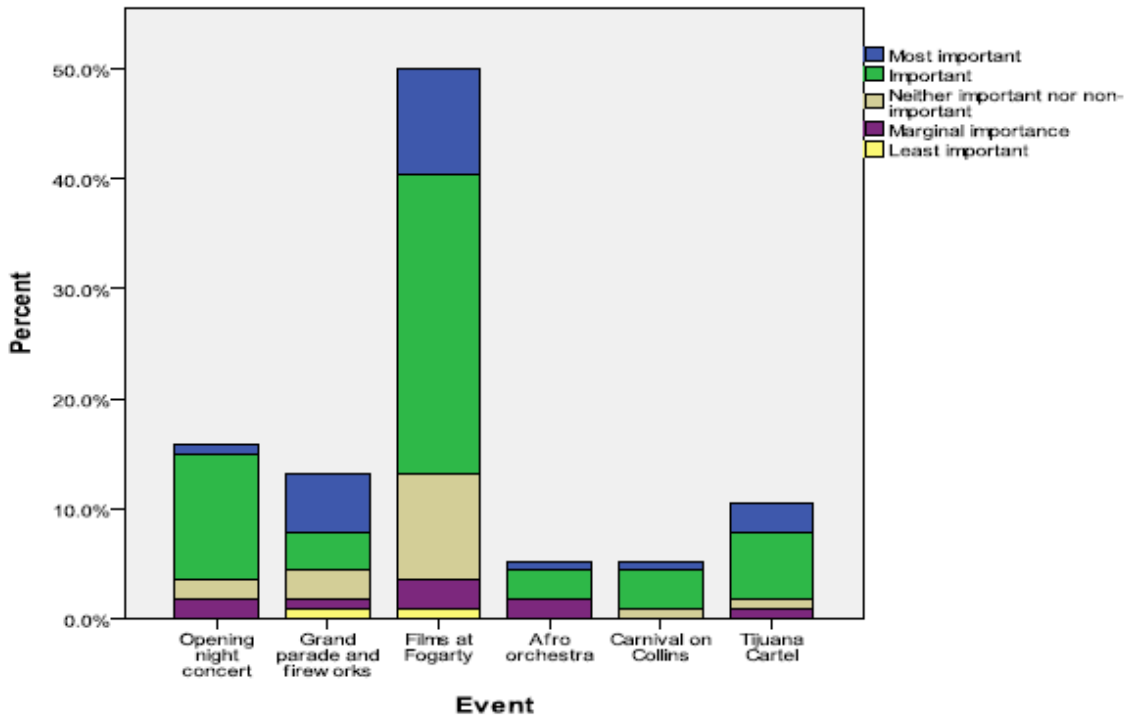


Figure 46 The knowledge and courtesy of the event’s staff and their ability to convey confidence and trust

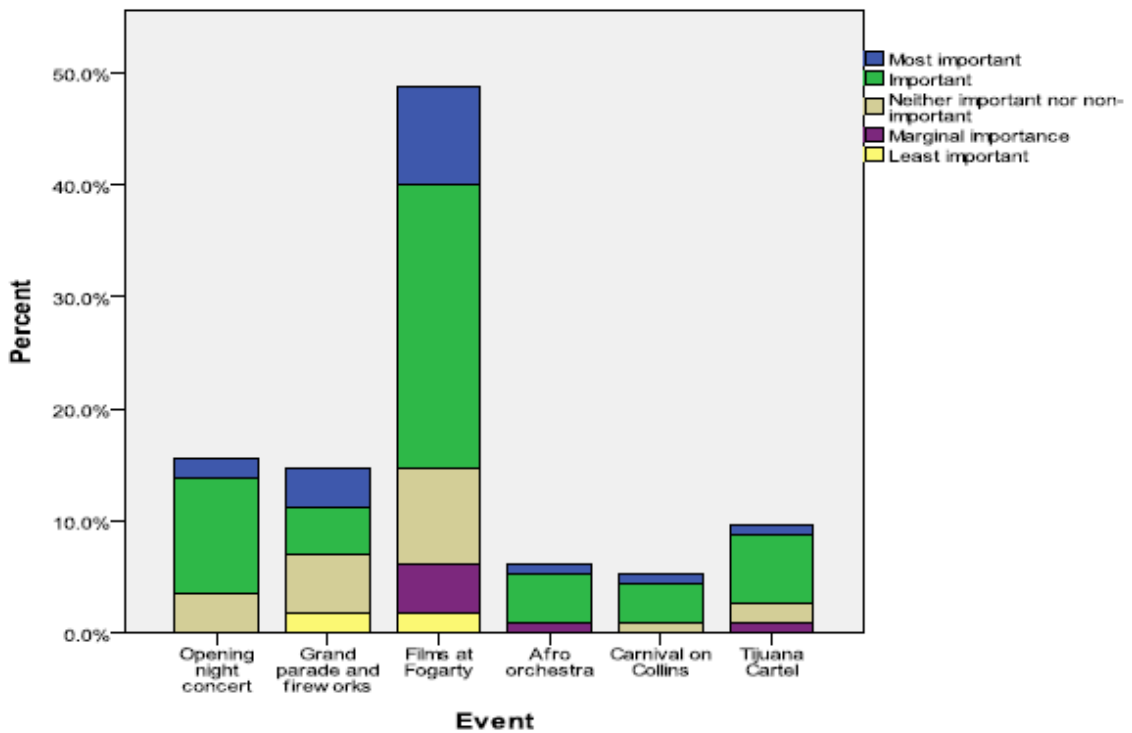


Figure 47 The caring, individualized attention the event provides to visitors

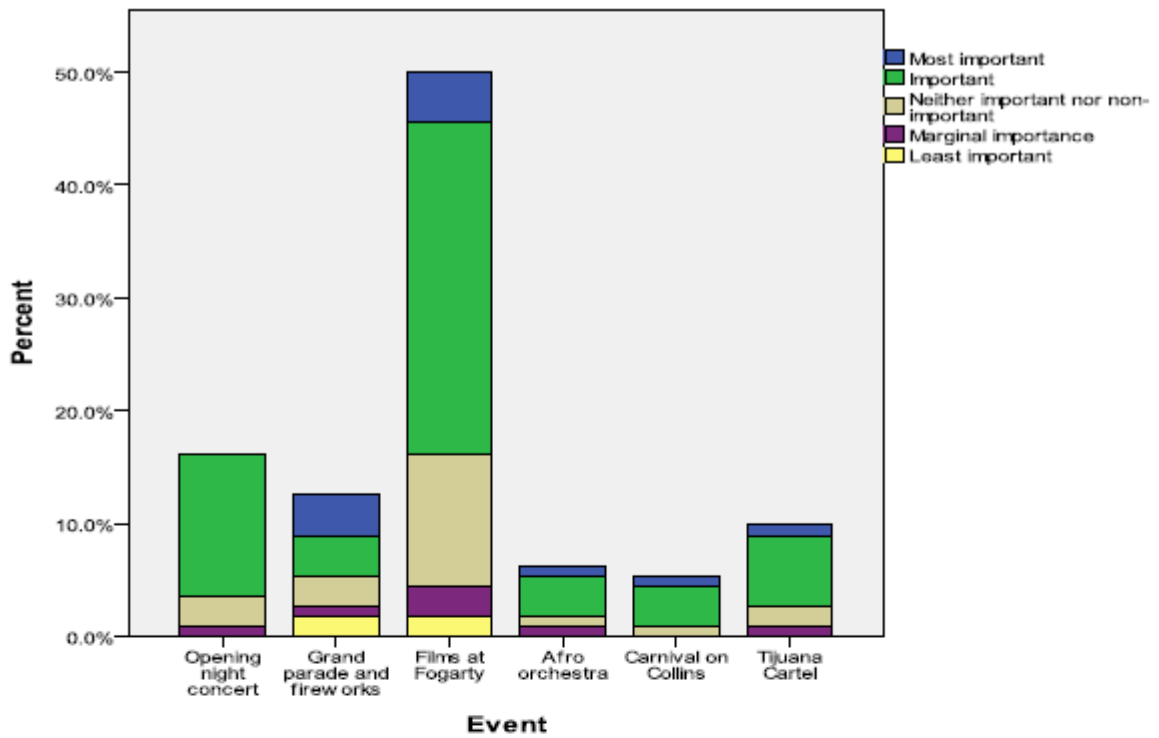


Figure 48 The event's consideration of the natural environment in its delivery

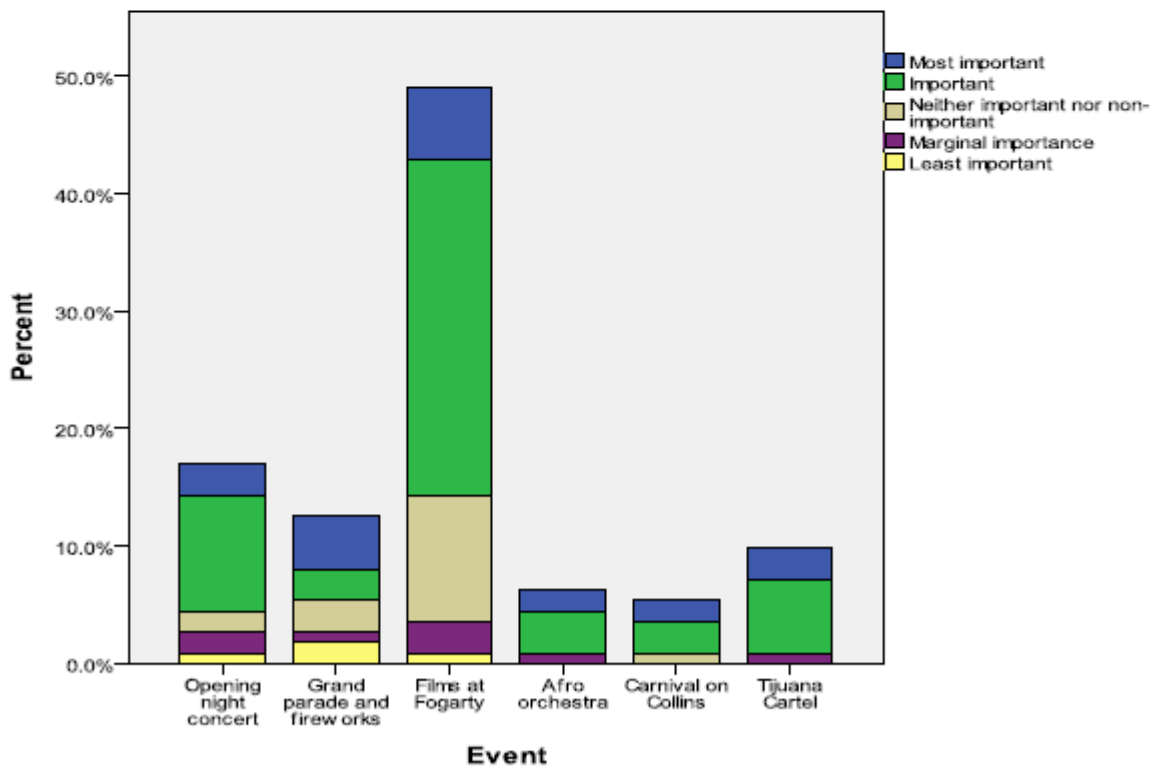
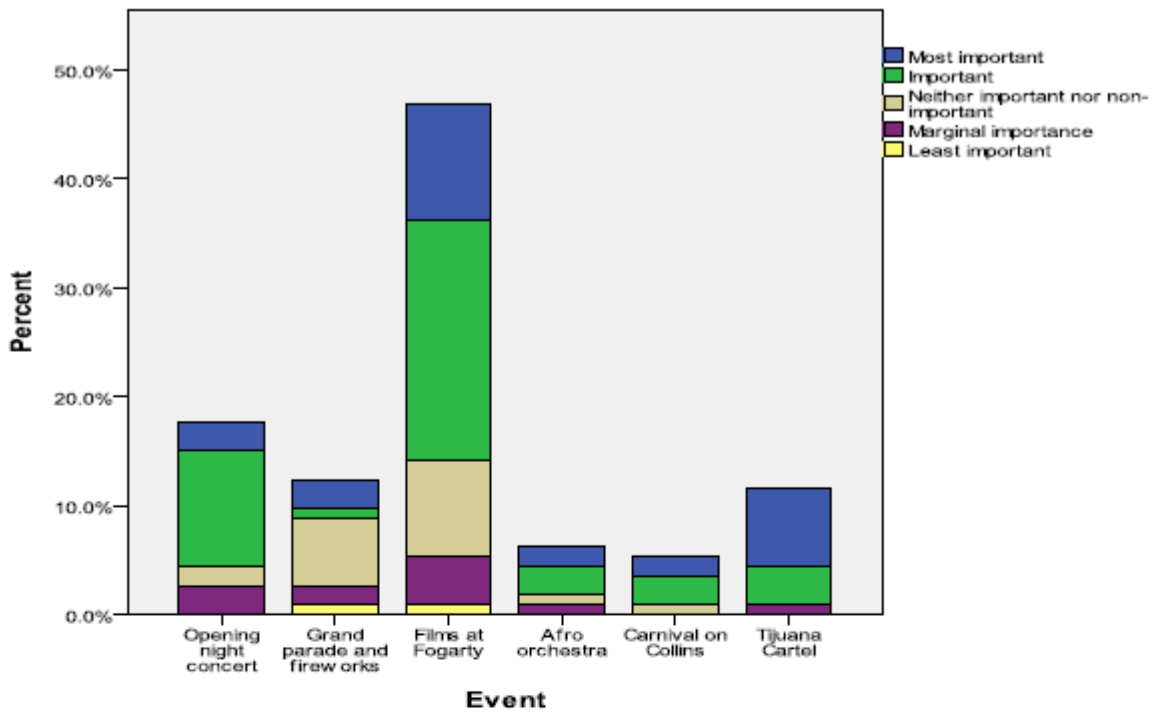
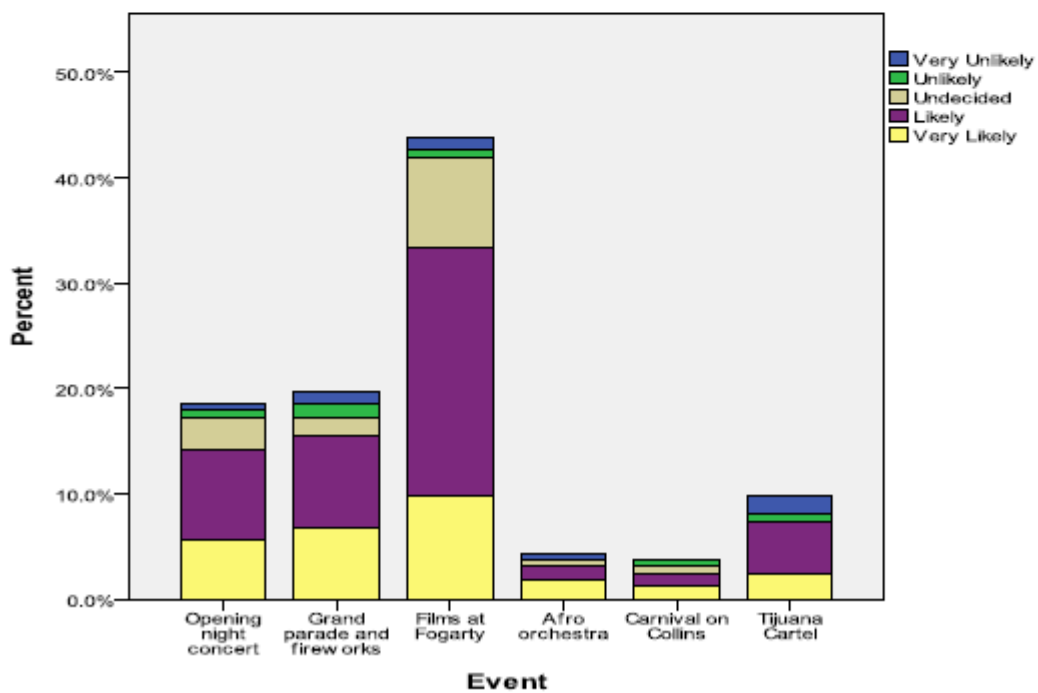


Figure 49 The artistic merit of the event



The following figure shows the likelihood of attendees recommending the event to another know person.

Figure 50 Likelihood of recommendation



## Appendix 3 - A hypothetical worked example

	Very dissat.	dissat.	Neutral	Satisfied	Very satisfied	Valid Total
<b>No. Of responses</b>	4	0	59	110	58	231 (A)
<b>Cumulative Score</b>	-8	0	0	110	116	
	(4 x -2)	(0 x -1)	(59 x 0)	(110 x 1)	(58 x 2)	110 (B)
<b>Net Mean Score</b>	B/A = 110/231 = 0.48 - rounded					
<b>Perception</b>	Very Dissat.	Dissat.	Neutral	Satisfied	Very satisfied	
<b>Score</b>	-2	-1	0	1	2	

**ATTACHMENT 3:**

Carnival on Collins 2011 – Eco-footprint Calculation



# 2011 Eco-footprint calculation



September 2011



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## QUALITY CONTROL

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**Executive summary**

Carnival on Collins is the Cairns Festival’s finale event, usually attracting up to 40 000 locals and visitors to enjoy a day of diverse and inspiring entertainment and activities played out amidst the city’s lush botanic precinct. Held on Father’s Day Sunday every year for more than 20years, this year’s event was on September 4<sup>th</sup>. The carnival is a high profile and popular event for all ages.

This year, Cairns experienced light rainfall throughout the day (12mm in 24hrs to 6pm Sunday) which reduced the number of attendees by approximately half to an estimated 15 000 attendees.

The venue was a showcase for the newly opened Tanks / Botanic Gardens Precinct Visitor Centre building.

This year continues the Eco-Friendly theme developed to support the implementation of the Cairns Regional Council Climate Change Strategy 2010-2015 Carnival on Collins continues to focus on reducing the carbon footprint of the event, and this year linked with CAFNEC to enhance its ‘Green Quarter’ component with sustainability focussed displays and awareness raising presentations.

**The eco-footprint of operations of this year’s event was 110.68 tonnes CO<sub>2</sub>-e** slightly lower than last year’s 113.3 tonnes of CO<sub>2</sub>-e emissions, because of:

- The use of much more efficient generators for powering the stallholders and
- the ability to offset consumption against the installed 20kW solar panels in the Visitor Centre.

In some areas, a slight increase was noted, but this was positive as it showed greater detail in calculations, due to:

- capturing data that was last year un-quantified, and
- the inclusion of the new Visitor Centre increasing the ‘inside’ component of the calculation.
- Lesser numbers of visitor due to the rain, whilst still catering for an anticipated 30 000.

Footprint for each of the estimated 15 000 visitors was calculated to be 0.01 Global Ha

This figure is still quite low due to the focus from the beginning of planning and operations, ensuring



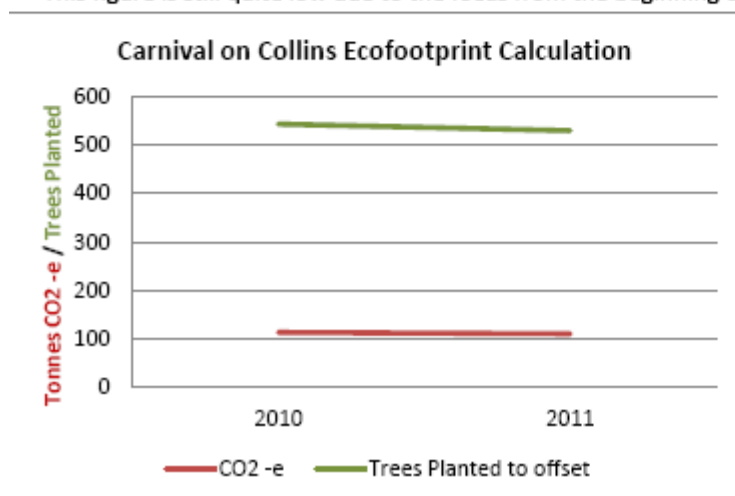
Photo 1: A "Sea of Umbrellas" in Collins Avenue, Sunday morning – 4/09/2011 K.Forde 2011



Photo 2: New Botanic Gardens Precinct Visitor Centre – 4/09/2011 K.Forde 2011

minimal use of fuel, electricity and minimal generation of waste.

The intent is to again offset the footprint to ‘carbon neutral’ by planting of 530 trees in the Cattana Wetlands, and will complement last year’s precedent of planting 544 trees at Cattana as a visual reminder and an ongoing offset of the carbon impacts of the event. This is proposed to continue for future events.



This audit was undertaken to document what has occurred in 2011 and compare against the benchmark set in 2010, to inspire ongoing opportunities to operate and reduce impacts into the future.

Positive and innovative Changes in 2011 included:

- the purchase and use of straw bales instead of hiring seating, with the intent of having functional seating which is appropriate in an 'open' area  
This was cost effective and ecologically sound as the straw bales were purchased and transported locally, from guaranteed weed-free sources and



Photo 3: Hay bales for seating K Forde 2011

the intent, from the beginning was for the used bales to be re-used as mulch around the gardens, meaning there is transport in only one direction.

Not hiring plastic tables/chairs and umbrellas whose legs sink into, and potentially damage the grounds and gardens reduced:

- expense to hire and transport; and
- double handling to set up and pull down, and
- cleaning time, water and use of chemicals prior to return to the Hire Company.

Improvements recommended last year, and implemented included:

- asking food vendors to specify that they use local produce,
- asking vendors if they could quantify amounts of the produce they use to produce their saleable food,
- continue with insistence on recyclable packaging with a focus on purchasing it locally - if possible.
- Quantify bottled water sold during the event - although not all bottled water was quantified, more detail is now available.

This was verified by the use of a 'survey monkey' after the event to which 31 stallholders replied. Results and discussion in Section 6.

- Source "green" electricity. A suggestion from last year's audit was to try to use 'green power'. Although the whole event is not powered by 'green power', the new visitor centre has its own 20kW solar system as part of its sustainable design. The inclusion of this factor offset the slightly higher power use estimated for this year's event by using the Visitor Centre, additional stallholders and an additional stage.

Improvement suggestions identified last year, but not able to implement included –

- Providing a wider variety of waste disposal bins. The same range of bins were provided, more detailed signage on appropriate contents were provided and distributed throughout the site. In Cairns, there are limited supplies of recycle bins available, and it is not possible yet to source organic materials bins, nor practical to purchase them for one event.
- Encouraging more people to leave their cars at shopping centres and catch public transport is no longer considered practical, due to Sunbus running a 'holiday' timetable which would not fit the needs of most customers, and no additional budget is available to hire buses all day from the various locations. The bus shuttle circuit service from Greenslopes Street the event via Mayers Street the previous year was continued this year with excellent support.



Photo 4 Sunbus - Zac Mathes 2010

## 1 Introduction

Carnival on Collins is the Cairns Festival's finale event, usually attracting up to 40 000 locals and visitors to enjoy a day of diverse and inspiring entertainment and activities played out amidst the city's lush botanic precinct at the Flecker Botanical Gardens, Edge Hill. Held on Father's Day Sunday every year for more than 20 years, this year's event was on September 4<sup>th</sup>. The carnival is a high profile and popular event for all ages.



Photo 5: Collins Ave "A Sea of Umbrellas"  
Michael Watt – Cairns Post

In the spirit of continuing support for Cairns Regional Council's sustainability initiatives, Carnival on Collins again focussed on reducing the carbon footprint of the event, whilst introducing a number of new components to the event - the 'Sustainable Living Quarter', 'Man-land' and showcasing the Cultural Precinct Visitor Centre.

The organizer of the event, Ms Sandy Astill and her team continue to focus, where possible, to reduce and offset the eco-footprint of the event. They maintain the relationship with The Missing Link – Resource Coordinators to:

- identify ways to hold a 'greener' event
- engage the stakeholders – other organizers, including the Cairns Regional Council; participants; stall holders and the public – to become more aware of, and to try to reduce their eco-footprint whilst enjoying this event
- calculate, and identify improvements to minimize, and offset the eco-footprint of the event.



Photo 6 Sustainable Living Displays and Presentations Photos: CAFNEC

### 1.1 What is "Carnival on Collins?"

#### "Carnival on Collins is an eco-friendly event"

Carnival on Collins maintains the drive to engage stallholders and the visitors to conduct the occasion as an eco-friendly event. Again the focus has been on:

- eco-friendly packaging which can, and will be re-cycled;
- sourcing local produce where possible;
- provision, and education in the use, of recycle bins;
- publishing the program in the Cairns Post on the day before and encouraging visitors to cut it out and bring it with them rather than printing a single-use program;
- provision of shuttle buses as public transport to bring people from centralised points to the event.

Of course all events produce some carbon. Again, the carbon footprint of Carnival will be calculated, to gather information about how much of an impact Carnival has had on our planet. This information will then be used to calculate how many trees it would take to off-set this carbon footprint. To create a truly "carbon neutral event", the Cairns Regional Council organisers of Carnival on Collins will be planting additional trees at the Cattana Wetlands later in the year. Building on last year's benchmark and focussing on making the event 'carbon neutral' is the work of leaders in the field, and it is hoped that our initiatives will be an inspiration to organisers of other outdoor events in our region.



Carnival on Collins Site Map 2011

From The Tanks website:

“At Tanks, Father’s Day means just one thing *Carnival on Collins*. This community event is an institution in Cairns, with thousands of people flocking to Collins Avenue throughout the day to enjoy live entertainment, market stalls, food, plants and so much more. Top tip, plant lovers come early, music lovers hang out by the main stage to enjoy *Pugsley Buzzard and Stiff Gins*. A new feature in 2011, is Dad’s new special area ‘Man Land’. Be one of the first to check out our new Cairns Botanic Gardens Precinct Visitor Centre.

Held on Father’s Day, Carnival is a must-do event for all ages, attracting over 20,000 people to a day of diverse and inspiring entertainment and activities, played out amidst the city’s lush botanic precinct. This year’s event combines over 200 market stalls including plants, food, arts and crafts.”

Significantly less people attended this year due to inclement weather. It is estimated that numbers of visitors were approximately 15000 rather than last year’s 30 000.

The newly opened Botanic Gardens Precinct Visitor Centre is stated to be a testament to sustainability in its construction and materials. Designed to reflect rather than dominate its surrounding rainforest and garden environs, the exterior of the \$6.2 million centre features 2,400 mirrored panels, never before used in Australia. Built with a non-traditional waving roof design and on only one level, the centre also features 20kW of solar panels, natural ventilation, low energy lighting and rainwater panels, to minimize its environmental impact in ongoing operations. It includes an interpretive area and displays, retail outlet, café and outdoor amphitheatre.



Photo 7: Wet Patrons Michael Watt – Cairns Post



Cairns Botanic Gardens Precinct Visitor Centre - "reflecting the beauty of our gardens"  
Construction of the visitor information centre commenced in October 2010.

The centre will be a focal gathering point for the precinct and house information on the gardens' plants and the precinct's history. It will include a meeting room and an attached undercover amphitheatre and house about 30 of Council's Community and Cultural Services staff. Future plans include incorporating interactive technology-based exhibits, kids' activities and possibly live animal displays  
- Cairns Regional Council website

## 2. Support of this program for Cairns Regional Council Climate Change initiatives.

Cairns Regional Council has in place a number of key initiatives that the calculation and offset of the eco-footprint of the Carnival on Collins event supports. One of the visions of the recently released **Climate Change Strategy 2010 - 2015** is that: "We will be Australia's greenest region".

Relevant goals of the Plan are to:

- Deliver more environmentally sustainable Council operations and facilities (Goal 1.7)
- Actively reduce Council's greenhouse gas emissions (Goal 1.8)
- Deliver integrated planning (Goal 3)
- Plan for impacts of climate change including mitigation and adaptation measures (Goal 3.5)

The evaluation of the eco-footprint of the Carnival on Collins event meets the following Climate Change Strategy KPI's:

- 1 - Percentage by which Council's total greenhouse gas emissions are reduced
- 2 - Percentage by which Council's consumption of Petrol and Diesel is reduced
- 3 - Number of Council decisions that consider climate change or peak oil
- 8 - Percentage decrease in community and Council waste going to landfill
- 14 - Number of public climate change and peak oil presentations or events conducted by Council

### 3. What is an eco-footprint audit?

An eco-footprint audit comprises, where relevant, verification of:

- Lighting and energy efficiency use
- Building design, layout, materials use and fitness for purpose
- Heating, ventilation and air-conditioning
- Office equipment
- Energy generation, supply and use
- Waste generation and disposal
- Transport – visitors and stallholders, deliveries
- Communication – internal and external of commitment
- Records of each aspect to be reviewed (where possible)

Information was collated through visits to the site prior to, and during, Carnival on Collins, plus discussions with key management staff, Carnival stallholders and display participants, and visitors to the event. In addition, this year, a 'survey monkey' was sent to stall holders to confirm their compliance to the sustainability initiatives committed to. Observations, discussions and improvement suggestions – during and after the event

Report collation, including calculation of eco-footprint used the latest and most efficient calculators available; and recommendations on how to reduce that footprint and/or offset the carbon emissions through a variety of methods appropriate to the site, scale and location of the footprint are included.

The Calculator measures the:

- **Ecological Footprint of the event** – the productive area needed to supply the resources, and process the waste generated from the event – in Global Hectares
- **Carbon Footprint of the event** - It uses life cycle assessment to estimate the carbon equivalents produced as a result of the event in tonnes of Carbon (CO<sub>2</sub> <sup>e</sup>).

### 4. Why do it?

A business or event who promotes itself as 'eco-friendly', 'sustainable' or any other of these terms implies a commitment to environmental protection and thought about minimising the impacts of its activities on the environment in which it operates. It should be prepared to validate that commitment either by internal or external verification to assure its stakeholders. Being "seen to be green" and 'walking the talk' inspires internal and external stakeholders to believe that you are serious about both protecting the community and the environment and changing the way business is done.

Where the aim is to lead behavior change over time, the first movers have a role in educating the community on how to start on the journey, and how to integrate the process of considering the elements of 'sustainability' into their thinking – from the beginning of the process:

- consideration of the impacts, and potential to reduce those impacts, on the environment and the community as well as the economic impacts of an activity.

The consideration of these aspects for events and other community activities shows leadership and guidance on what 'could be done', and the organisers of this event deserve congratulation for taking that lead.

## 5 Results

### 5.1 Carbon Footprint:

The CO<sub>2</sub> <sup>e</sup> of this event in 2010 is estimated to be: **110.68 tonnes of CO<sub>2</sub> <sup>e</sup> compared to last year's estimate of 113.31 tonnes of CO<sub>2</sub> <sup>e</sup>**

The eco-footprint of operations of this year's event was 110.68 tonnes CO<sub>2</sub> <sup>e</sup> slightly less than last year's estimate of 113.3 tonnes of CO<sub>2</sub> <sup>e</sup> emissions, because of:

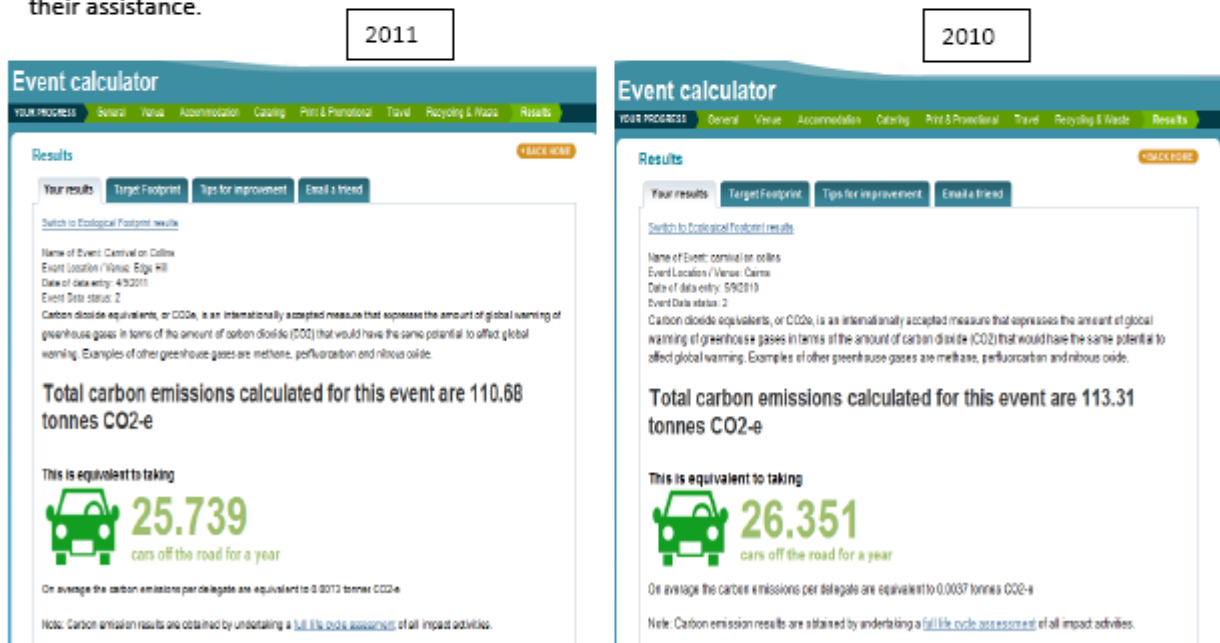
- The use of much more efficient generators for powering the stallholders and
- the ability to offset consumption against the installed 20kW solar panels in the Visitor Centre.

In some areas, a slight increase was noted, but this was positive as it showed greater detail in calculations, due to:

- capturing data that was last year un-quantified, and
- the inclusion of the new Visitor Centre increasing the 'inside' component of the calculation.
- Lesser numbers of visitor due to the rain, whilst still catering for an anticipated 30 000.

Footprint for each of the estimated 15 000 visitors was calculated to be 0.01 Global Ha

This figure of 110.68 tonnes CO<sub>2</sub> <sup>e</sup> for the event is quite low due to the focus from the beginning of planning and operations, ensuring minimal use of electricity and minimal generation of waste, and the high level of compliance to requested standards by stallholders and participants. The facilitator is to be congratulated on such effective engagement and the participants are to be congratulated for their assistance.



Total Carbon Emissions (kg)	Total Greenhouse Gas Emissions kg (Global average)											
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Activity	CO2		Methane		NO2		Sequestration		other		TOTAL	
Venue	1620.3	44.155	92.15	2.29	19.82	0.52	0	0	6.13	0.15	1739.3	47.14
Utilities	438.1	228.32	5.70	2.11	41.16	14.98	0	0	0	0	529.9	245.38
Accommodation	0	0	0	0	0	0	0	0	0	0	0	0
Catering	60538	79023	12686	13406	4231	5592.5	0	0	46.9	49.86	77500	98066
Print	6933.2	1807	352.8	626.5	105.6	149.07	0	0	1.27	0.38	7393	2582.8
Travel – Event	25875	0	316.07	0	2284.4	0	0	0	0	0	28475	0
Travel – Accommodation **	87.831	11517	1.35	140.81	0.34	1018.4	0	0	0	0	89.52	12676
Travel - Excursion	0	5.71	0	0.08	0	0.02	0	0	0	0	0	5.8
Recycling and Waste	-1895	-2897	-16.23	1578	-155.8	-137.6	-271.4	-1308	-105	-170.8	-2411	-2937

The colour coding indicates:

- a 'better/lower' figure than last year and
- a 'worse/higher' figure than last year

The calculator breaks down the Greenhouse gases that are likely to be emitted as a result of the activities. These are: Carbon Dioxide (CO<sub>2</sub>); Methane (CH<sub>4</sub>); Nitrous Oxide (NO<sub>2</sub>). This is particularly useful if Cairns Regional Council is required to report its Greenhouse Gas Emissions under the National Greenhouse and Energy Reporting Act (2007) (the NGERs Act) by emitting greater than 25000 tonnes of CO<sub>2</sub> -<sup>e</sup> from its combined activities. The calculator also quantifies the reductions in carbon footprint associated with the use of recycling programs and the offset of emissions through the generation of green power or involvement in revegetation projects.

\*\*Although no accommodation is required by artists, the calculator makes an assumption and factors in a proportion of the footprint of residents of Cairns and the region under this heading.

What hasn't been quantified in detail in the eco-footprint, but have only been estimated are:

- Fuel use of visitors travelling to the site, nor of the stallholders, however, the fuel use of the shuttle buses has been included
- Detailed ecological costs (carbon miles) of food or other goods sold at the event – as a complete breakdown of menus/food served is still not possible.

## 5.2 Ecological Footprint in Global Hectares

The Global Hectares of this event in 2010 is estimated to be: **88.911 Global Ha**

2011

2010



These results are broken down into an estimate of how much of each different land-use is required to produce the goods used: energy, cropping, grazing, forest and urban land. These figures will be more accurate with each assessment based on a refinement of the assumptions made when entering data. It is based around an international principle that each action requires a proportion of arable land to generate. The Global Footprint Network ([www.footprintnetwork.org](http://www.footprintnetwork.org)) calculates that there is approximately 2.5 global Ha of arable land per human on the planet.

“A global hectare is a common unit that encompasses the average productivity of all the biologically productive land and sea area in the world in a given year. Biologically productive areas include cropland, forest and fishing grounds, and do not include deserts, glaciers and the open ocean.”

This event would be part of the cumulative impact for each participant.

### 5.3 Consumption and Carbon emission calculations

Over the past few years, a number of calculators have been developed to estimate CO<sub>2</sub> emissions but few have yet been specifically developed for events, and specifically not for this type of remote locale. The only calculator generally available, developed for an Australian setting, and with an acceptable level of robustness is the Victoria EPA Carbon and Ecological Footprint Events Calculator. [www.epa.vic.gov.au/ecologicalfootprint/calculators/event/introduction.asp](http://www.epa.vic.gov.au/ecologicalfootprint/calculators/event/introduction.asp).

The website provides a number of resources:

- checklist for the overall event
- delegate questionnaire
- venue questionnaire
- supplier / exhibitor questionnaire.

It bears a disclaimer, which states: “The results shown by the calculator are an approximate guide and should only be used for estimating the Ecological Footprint or greenhouse gas emissions of your activity.”

The same calculator has been used this year to ensure consistency of calculation parameters in this early stage of the process. In addition to the original process, this year a ‘survey monkey’ was used to collate additional information from stallholders. [www.surveymonkey.com](http://www.surveymonkey.com)

As more calculators are developed which are specific at a particular site or industry, they will more effectively reflect what ‘is’ happening at the site, rather than what ‘might’ be happening. And as an organisation or event becomes better at collating the information upon which its estimation is based – energy or water or fuel consumption; ‘travel miles’ of both participants and ‘food’; waste generated and the proportion of all elements that can or are recycled; the whole-of-life costs of the products being utilised, then the initial trend of the footprint may be upwards, as has happened in this instance, however the impacts of initiatives to reduce the footprint and the robustness or accuracy of the results will increase.

The EPA Victoria has a number of support documents to aid in implementing improvements. All recommendations from [epa.vic.gov.au](http://epa.vic.gov.au) website “Tips for Improvement” were considered as part of the collation of this report last year, and where relevant or modifiable, have been implemented for this year’s event.

## 6 Discussion

This project clearly illustrates how individual choices, prior to selection of materials and methodologies of transport, construction, energy generation, lighting, water treatment and preparation and consumption of food, paper and other consumable materials, essentially a careful consideration of the 'whole of life' costs of purchase, operation and eventual disposal of the product will, over time, lead to a quantifiable reduction in the eco-footprint as well as the operational costs of an event or business operation.

The focus this year on sourcing local and recyclable packaging has led to an observable change in the proportion of each element within the footprint. The proportion of the footprint associated with travel changed due to:

- the number of people attending, and
- no international performers at the Tanks requiring travel to the event.

The use of the survey monkey to determine key indicators like the amount of bottle water sold was a new and very positive initiative. More than 25% of stallholders surveyed responded to the survey, which is quite a high response rate. The level of response indicates that there is a high level of understanding of, and commitment to, the principles of eco-efficiency defined in the booking documentation and a willingness to share that commitment with the event management team.

Calculators tend to use analogies like "how many vehicles will be put off the road for a year" or "how many football fields" does this footprint equate to. For some people, this is

advantageous in suggesting what offsetting the footprint could achieve. In others, it is confusing, as the behavioural change to offset is outside of their capacity to achieve or they may not be able to visualize 68 soccer fields. This confusion however, should not deter anyone from taking action to reduce their eco-footprint. Even small measures taken can make a significant and positive impact.

The calculation of offsetting 4.8 trees for every tonne of CO<sub>2</sub>-e emitted and the planting of those trees at Cattana Wetlands will provide a very visible mechanism to recognize what is/has been achieved and is hoped to stimulate other actions of Council, other government and non-government entities to offset their emissions, and to do so locally.

The set-up of 'like' stalls with each other and the provision of additional experiences this year, including ManLand and the Sustainable Living Area achieved the intent of exposing the Botanic Gardens and the Tanks Precinct to an additional potential audience. The key sustainability message was inherent in every aspect of the program, retaining the intent and integrity of the message.

**2011 FOOD STALLHOLDER PACK**

**CARNIVAL ON COLLINS 2011**

**IS PROUDLY A CARBON NEUTRAL EVENT**

To ensure that Carnival on Collins remains an eco-friendly event all stall holders are encouraged to assist us in reducing land-fill by reducing their waste.

**All stallholders are encouraged to**

- Only using eco-friendly products for packaging
- Placing all recyclables in the **YELLOW** topped 'recyclables' bins
- Depositing of all other waste in the **GREEN** topped bins
- **NOT** placing used cooking oil in any bin – **TAKE IT HOME WITH YOU**
- Placing large flattened cardboard cartons into the skip provided, and **NOT** in the green or yellow bin
- Thinking carefully before disposing of your waste and by keeping an eye out for any information and instructions at bins

At the conclusion of the event, organizers will be calculating the carbon emissions produced by Carnival, and organizing to plant trees at Cattana Wetlands to compensate for the emissions. In 2010, 544 trees were planted to off-set the carbon emissions produced by Carnival. It is our hope that this year our emissions will be further reduced, whereby indicating that Carnival on Collins had less of an impact on the environment in 2011 than in 2010. By following the suggestions above, you will assist in reducing these carbon emissions.

*Organisers would like to thank you for your assistance in helping to make Carnival on Collins, once again, an eco-friendly event.*

*Food Stallholder Information Pack 2011 – Above*

## 6.1 Catering

For this event, as would be expected, the greatest proportion of the footprint is attributed to **Catering**. In part, due to the attempt this year to 'break-down' the menu into specifics, the proportion of the total footprint of catering has risen significantly from 65% to almost 89% of the total figure estimated. Prior to the discount for offsets, the calculation is of 98 tonnes CO<sub>2</sub> <sup>-e</sup> of the total 110.68 tonnes CO<sub>2</sub> <sup>-e</sup>.

It is still not possible to quantify exact proportions of each food element, so an estimated dollar figure of \$10 spends per visitor was the cost value used to estimate the food footprint. The eco-footprint calculator has the capacity to further break down the impact of food preparation by its elements: meat, dairy, bakery etc.

### Improvement Opportunities:

In traditional eco-footprint calculators, the 'whole of life cost' of the production of meat products is usually much higher than other products. Therefore the footprint may actually be even higher, as a large proportion of meal products included some meat – including chicken and beef burgers, curries, kebabs.



Photo 8 - locally produced Blue Sky Brewery tent.

A focus this year has been to request that locally produced food and drinks were sourced for sale at the event, to reduce the 'carbon miles' of each product. This also has helped ensure the Global Hectares figure is substantially reduced. Of note, was:

- Most of the coffee used was locally produced, which is often a quite high element with the footprint of other regional 'food miles'.
- The Beer was locally produced by the vendor Blue Sky Brewery.

The breaking down of food and drink into more detail includes the footprint from glass and aluminium can packaging from the soft drinks and beer sold. These traditionally have a high footprint, as they are not produced locally.

Food and Drink	2010 Carbon emissions kg	2011 Carbon emissions kg
Meat	0	0
Dairy	0	0
Fruit and Vegetables	0	0
Oils and fats	0	0
Flour and Cereal foods	0	0
Bakery Products	0	0
Confectionery	0	0
Other food products	0	0
Soft drinks and beverages	0	2137.8
Beer	0	956.8
Wine and Spirits	0	0
Tea and Coffee	0	27580
External catering	77500	67392

## 6.2 Packaging

The next largest contributor to the footprint is packaging, mostly that associated with the service of food and drink: plates and cups mainly. These, even though manufactured from biodegradable materials, still have a footprint. This year saw the figure come down from nearly 7.5 tonnes CO<sub>2</sub><sup>e</sup> in 2010, to just 0.3 tonne in 2011.

From the survey monkey results, from 30 stallholders:

Sourced	Number	Proportion
Locally	27	90%
Interstate	2	6.7%
Internationally	1	3.3%
No response	2	

This is an excellent trend from a number of sustainability perspectives. It reduces the carbon miles of the footprint, and meets the social and economic parameters of supporting local retailers and the small local manufacturing industry, including one which derives products from the waste of the banana industry. Additional uptake of sourcing local packaging is limited by little local or large scale manufacturing industry.



Picture 9 Biodegradable coffee cups used throughout the site Forde 2011

Print and Promotional Items	2010 Carbon emissions kg	2011 Carbon emissions kg
Paper	6185	1237
Plastic	1208	0
Stationery	0	0
Printing	0	0
Textile	0	1345.8
Clothing	0	0
Other consumables	0	0

The change in quantities in this area reflects a change to actively reduce the amount of plastic and plastic wrap used for food storage and wrapping.

### Innovative initiative and improvement opportunity:

This year, as per last year, to minimize paper waste, cost and printing impacts, no programs were printed. No large scale paper based advertising program was undertaken. Most other marketing was electronic – TV or internet based, including a facebook page. (see p21)

The Cairns Post generously sponsored the event, and part of their contribution included the publishing of the site map. The innovative mechanism of having the program and map printed in the Cairns Post (p6 of this report) on the Saturday prior to the event, with a request to cut out and bring to the event if required, was again instigated. This reduced the need to produce a document which would only be used for a few hours then discarded. The Cairns Post is printed on recyclable paper and has an active carbon footprint reduction process implemented across the News Limited organization: 1 degree of change; and therefore this process adds little to the eco-footprint of the overall event. Utilizing this strategy for future events is to be encouraged.

This year a number of new textile banners and corflute signage was produced to reflect the new initiatives implemented. Where possible these were sourced and printed locally. The banners and most of the corflutes, including directional signage, will all be able to be re-used in future years, for an expected 5 years. The banners are fabric based, so can be recycled when their effective life has ended. Three corflute signs with date specific content cannot currently be re-cycled due to their plastic coating, although investigation was, and will continue to be, undertaken to find cost-effective, more eco-friendly alternatives.

### 6.3 Recycling and Waste

A very positive aspect of this footprint is that 90% of the waste generated had the potential to be recycled. This is why such a focus in the planning of the event, was to engage with the stallholders to use recyclable materials in their packaging for goods sold. The success of this form of engagement is evident in compliance to the policy of waste reduction prioritized for this event and the number of stallholders who participated in the electronic survey. Of the 120 plus stallholders, 31 (25%) responded to the survey and were keen to share their experience and commitment.

RECYCLING and WASTE	2010 Carbon emissions kg	2011 Carbon emissions kg
Recycling Paper	533.99	331.44
Recycling Glass	0	0
Recycling Plastic	0	0
Recycling Aluminium and Steel	-1729	0
Recycling Mingled Glass/Plastic	-704.1	-218.5
Recycling Mingled Paper/ Glass/ Aluminium/ Plastic	0	-2910
Organic Waste	-511.7	-476.4
General Waste	1181	336.5

As part of the Stall booking pack, information was provided to all stallholders on appropriate and available biodegradable packaging, and sourced for food stalls and drinks vendors. It is estimated that approx 90% of the packaging used was able to be placed in the recycle bins, with a high level of confidence. **This allowed a 3.6 tonne credit against the emissions of the event by the calculator.**

Bins were placed across the site, to gather as much waste as possible. 45\*240Litre Recycle bins (yellow lids) and 90 \* 240L co-mingled waste bins (green lids) and 3\*1.5m<sup>3</sup> skip bins = 4.5m<sup>3</sup> rather than 2\*3m<sup>3</sup> skip bins last year were distributed and filled during the event.

The bins were labelled to identify the appropriate contents and all marketing highlighted the desire to minimize the generation of waste and maximize the recyclability of the waste generated.



Photo 10: checking the bins for contents Forde 2011

In 2011, a random sample of 10 waste bins was undertaken at 3pm on the day of the event, to estimate the different types of waste in each one. This led to a very different estimation of the amount and proportion of waste than from the previous year's assessment, which had no site inspection. An estimate of the proportion of the waste generated was used in the calculation – with recyclable paper cups and food trays, aluminium cans and then plastic bottles being the predominant waste by visual inspection. The eco-footprint of food packaging and drink cups has been discounted significantly due to it being sourced from corn-starch, bamboo and other biodegradable materials.

The degree of separation of waste was not as high as was hoped, despite increased signage and education program.

The use of straw bales as seating and to stabilize the ground under vendor vans, with the intent of re-using them throughout the Botanical Gardens as mulch is another of this year's positive initiatives. An ordering requirement was to certify that the mulch was weed free.



Photo 11: Hay bales as seating for Stage 1 Forde 2011

#### Improvement opportunities:

Although an effort was made to provide greater awareness signage at this event of waste separation options, it was not evident that a greater compliance occurred. A visual evaluation of the bins showed that waste is still not well separated. Signage, although increased did not seem to work with the day's crowd.

An improvement may be possible with greater awareness generated amongst both the public and the stallholders. This education program could be conducted either by Cairns Regional Council, Water and Waste team or as a service by waste bin suppliers. Clearer signage on bins, a larger range of specific target bins, well identified, could be made available – appropriately located throughout the site. For future events, this would allow a more accurate identification of the proportion of each waste stream.



Photo 12: Recycle Bins and separation signage Forde 2011

## 6.4 Utilities –

Utilities	Carbon Emissions (kg)	
	2010	2011
Electricity used during the event	79.95	89.50
Supply of 'green' energy consumption	0	-26.85
Gas use during the event	0	0
Water use during the event	0.297	0.148
Petrol use during the event	511.23	182.58
Diesel use during the event	0	0

The trend for a slight increase in energy use at the event due to the inclusion of the Visitor Centre has been partly offset by the ability to generate a proportion of the site's energy from the solar panels on the new Centre.

The smaller number of patrons is anticipated to have led to lesser water consumption, outside of normal operations of the Botanic Gardens.

### 6.4.1 Energy generation

An estimate of kWh of power to provide lighting across Carnival on Collins was estimated to increase from 13.4 kWh to 15kWh, for the day. This year, Carnival on Collins used a greater area of the Botanic Gardens/Tanks Art Centre site, and the new Visitor Centre with displays in and around the Visitor Centre, an additional sound stage and some different activities, including powerpoint

presentations on sustainability issues throughout the day. However, this was offset by the fact that the Visitor Centre has the capacity to generate up to 20kW of power from the solar panels mounted on the roof. The solar panel array has a monitoring capacity, so future assessments will include a more accurate estimation of generation based on actual data.

A decision has been made not to include the lighting and water aspects of the Visitor Centre for the day as it will exist and be operated 'normally' as part of Cairns Regional Council/Tanks Arts Centre operations from now forward. This new facility has had sustainability principles included in its design and includes measures such as Low Energy Lighting and water-efficient toilets and taps, and design to maximise use of natural light and minimise the need to use air-conditioning.

#### 6.4.1.1. Generators

The proportion of the footprint for energy generated due to the operation of the generators used on site to provide lighting or music has reduced from just over half a tonne CO<sup>2</sup> -e in 2010 to 0.2 tonne principally due to the use of larger but more efficient generators. The quantity of fuel used by the generators reduced from 182L of petrol to approx. 65L of petrol.

Generators used for this event were 1\* 160kVA and 100 kVA units. Calculation of output was 200kW of power. Organisers ordered 3\*17 kVA units and 1\*45 kVA unit (96 kVA). Due to demand for generators to provide power at the Cairns Amateurs, Carnival on Collins received much larger generators than were ordered.

\*\* By coincidence, these generators were more fuel efficient than many smaller machines. The litres of fuel used was calculated based on 3.2 kW/L (a figure verified by CSIRO comparisons of generator use. <http://www.csiro.au/helix/sciencemail/activities/energyuse.html>)

- 200kW generated = 62.5L This figure is substantially less than last years, use of 182L.

#### 6.4.1.2 Entertainment venues

There were 3 stages used this year rather than 2 last year. Carnival management hired the Main Stage for set up within the Botanical Gardens. CRC owns the other stages.

- Tank 5 – Entertainment –used stage lighting only
- Tank 4 - Art Gallery

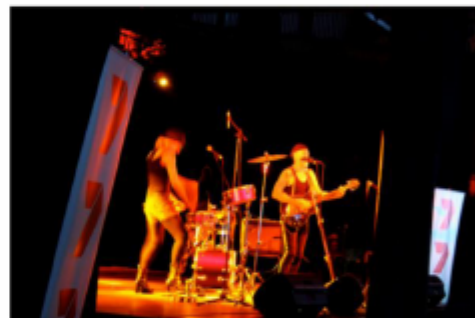
No extra power would have been used at either site than 'normal'.

The amount of lighting provided in Tank 5, the Entertainment Tank, was primarily from natural sources is maximized with doors opened and only a small number of lights adjacent to the stage being utilized for approx 6 hours during the day, within The Tank itself. All other entertainment venues were established outside to make use of natural light.

All facilities on northern side of promenade used Tanks power. Stalls tapped into bollards – Tanks site external 3-phase units.

#### Improvement opportunity:

A number of last years suggested improvement opportunities have been implemented:



Photos 13 and 14: Tank 5 (above) and Tank 4 – Art Gallery (below)



- The suggestion to “Pay the premium for Green Power for the electricity bill of The Tanks” has been partially achieved by the implementation of solar panels on the roof of the new Visitor Centre to generate its own power, and installing energy efficient lighting in the building. Whether Council pays a Green Power premium is still to be confirmed.
- Although fuel for generators could not be readily accessed from locally produced biofuel, the use of more efficient generators led to a reduction in fuel used.

#### 6.4.2 Fuel use

Fuel for transporting equipment to the venue and people across the site was estimated. This was again a very small figure. The same transport options as last year applied. A shuttle bus was used to ‘ferry’ people from where their vehicles were parked along Greenslopes St, along Mayers Road, east along Collins Avenue and then back via Sheridan Street to Greenslopes Street. Although it was hoped that shuttle buses might have been able to pick-up and drop-off at local shopping centres, the budget to run this event was not increased so funds to provide this service could not be allocated. The shuttle run occurred approximately every 30 minutes all day from 0900 to 1500, so the calculation was for 13 runs.

Equipment, such as Generators and Marquees were transported to and from the site in one medium and one large sized truck, with an estimated 30km return journey. Straw bales were delivered in a small truck on a one-way journey.

VENUE	Carbon Emissions (kg)	
	2010	2011
Total Ground Area	0	0
Indoor Area	1728.8	42.246
Structure Transport by Car	0	0
Structure Transport by Small Truck	7.348	4.89
Structure Transport by Large Truck	3.18	0
Structure Transport by Shipping Container	0	0

What was not quantified is the distance travelled by stallholders in bringing their products to the venue, however, an attempt was made to quantify the size of the vehicles used. 98% of stallholders or their staff came in a car. There is an opportunity for next year to further define what size of vehicle was used.

TRAVEL		
	2010	2011
Walking	-	0
Cycling	-	0
Public Transport	44.9	5.82
Long distance Bus	0	0
Long distance Train	0	0
Hybrid car	0	504.15
Small car	3361	2016.6
Medium car	8134.6	4067.3
Large Car	20296	6088.8
Domestic flights	0	0
International flights	0	0

Domestic flights (offset)	0	0
International flights (offset)	0	0

\*The calculator changed slightly this year, giving an option for quantifying visitors to the site who chose alternative methods of access, including walking and cycling. This resulted in a smaller 'footprint' from the calculation than last year's attempt to quantify the amount of fuel used by patrons attending the event. Based on use patterns observed, the proportion of vehicles was again estimated at 50% Large/ 4WD vehicles; 30% medium sized vehicles and 20% smaller vehicles. Due to being in Tropical North Queensland, this proportion is considered 'average'.

This year there were no overseas artists featured at the event, so no airflights or accommodation needed to be quantified this year. This led to a substantial reduction in the proportion of the footprint associated with Transport.

#### 6.4.2.1 Road Closure to encourage public transport use or walking

The Botanical Gardens, where Carnival on Collins is held is located where many locals can walk or cycle safely to the site. The set-up of parking facilities and the closing off of Collins Avenue to traffic during the event encouraged people to walk or cycle or use public transport. The venue is suitable for access by families with small children in prams and for wheelchair bound patrons.

#### 6.4.2.2 Straw Bales

Straw bales were to be used as seating. Because of the soggy ground, they were also used below some displays to allow parking on, whilst minimizing impacts on the ground and new lawns. Hiring tables and chairs could have caused significant damage to the soggy ground at the venue and would have required cleaning prior to return to the hire company. The choice of straw bales reduced the transport costs and the time to transport and distribute them across the site.



Photo 15: Straw bale seating in use

#### 6.4.2.3 Other materials transported

Tents and marquees were rented from local events suppliers for the major entertainment. Most stallholders brought their own marquees. This is a reflection of the focus on local purchase to minimize travel distance.

Banners and Corflutes were all printed locally at Westcourt

- Banners and most corflutes will be re-used.
- Street signs and directional signage are new – they can also be re-used.

### 6.4.3 Water Use

Very little water was used specifically for this event. The gardens and the venue have their own operational water budget (and water demand-management /water minimisation program) in place. The Visitor Centre has the capacity to capture and use rainwater. This was not quantified as part of this process. Water used estimate is limited to that used for food preparation and washing, and for coffee/tea sold during the event. Based on an estimate of 5000 cups of tea or coffee purchased, approx 1250L or 1.25KL of water is estimated to have been used. No measure of bottled water sold is yet available.

In response to the 2010 improvement suggestion to quantify bottled water use, the survey monkey asked stallholders "If you sold bottled water, what is the estimated number of bottles sold?" Of 31 participants, only 7 answered this question. Of those, Results indicated:

No of participants	Bottled water consumed
4	<20
3	21-50

It was a cool day, so a smaller number of bottled water may have been sold. The exact quantity of tea, coffee or alcohol was not yet quantified. Another opportunity for next year.

Again, most stallholders provided their own water for washing, and due to the use of disposable plates and cutlery, very little of this would have needed washing. The majority of 'washing up' water would have been used to clean preparation materials/tools. Stallholders were requested to use low or phosphate free products for washing. 18 of 19 Survey Monkey respondents stated that they chose phosphate free cleaning products. This is more than 2/3 of the overall program respondents.

No additional water was used.

- The hot food people sold more products this year, but the cold water and 'slushy' people did less due to the weather. With approximately ½ the number of visitors, it could be anticipated that approximately ½ the water would have been used.

### 7. Observations:

Rain impacted the event – with no cover readily available. The new Visitor Centre does not provide sufficient rain cover or shade for large numbers of visitors. Temporary shade may be a consideration for Council to consider for future events.

#### Improvement opportunity:

For future events, it should be possible to

- Get more detail on the quantity of bottled water sold during the event.
- Further detail may be possible of water used for tea and coffee, soft drinks and alcohol.

### 8. Sustainability initiatives and awareness raising:

An alliance this year was established with CAFNEC – who received a grant from Council to run their Envirofiesta. Due to operational circumstances, it was decided to amalgamate that event with Carnival on Collins. 33 stalls focussing on environmental awareness and natural heritage management, presentations and showcases in the area designated as the Sustainable Living Area.



**CAFNEC**  
**CAIRNS AND FAR NORTH ENVIRONMENT CENTRE**  
 Working to Protect Far North Queensland's Environment

Invitation to take part in the Sustainable Living Area,  
 part of Carnival on Collins,  
 Sunday September 4

This year the Carnival on Collins will feature a Sustainable Living Area that will promote the organisations and businesses that promote sustainable living in our region. With tens of thousands attending the event every year, this is surely going to be a day of active engagement with the community.

The Sustainable Living Area will have pride of place at this year's event as it showcases the opening of the brand new [Cairns Botanic Gardens Precinct Visitor Centre](#).

We invite you to participate in this year's event. There are several ways in which can contribute and gain exposure for your organisation or business. You can utilise one or more of these opportunities:

- **Information or Market stalls** (\$50 for Environmental Commercial businesses and free for community environment groups). [Applications available here](#)
- **Short Talks and Presentations** to promote a service, activity or product to be held at the fabulous new Visitor Centre Amphitheatre
- **Workshops** showing off your product, service, for information or just for fun

For commercial or community market and information Stalls please apply directly to the Tanks Arts Centre via [http://www.tanksartscentre.com/\\_inc/doc\\_download.aspx?did=541](http://www.tanksartscentre.com/_inc/doc_download.aspx?did=541). **Application Deadline is Monday August 1**

For talks, presentations and workshops, please contact myself, Steve Ryan on 4032 1586, or via [marine@cafneec.org.au](mailto:marine@cafneec.org.au)

**Space for stalls is limited and space for short talks and presentations is very limited, so get in quick!**

I hope to hear from you soon,

Regards  
 Steve

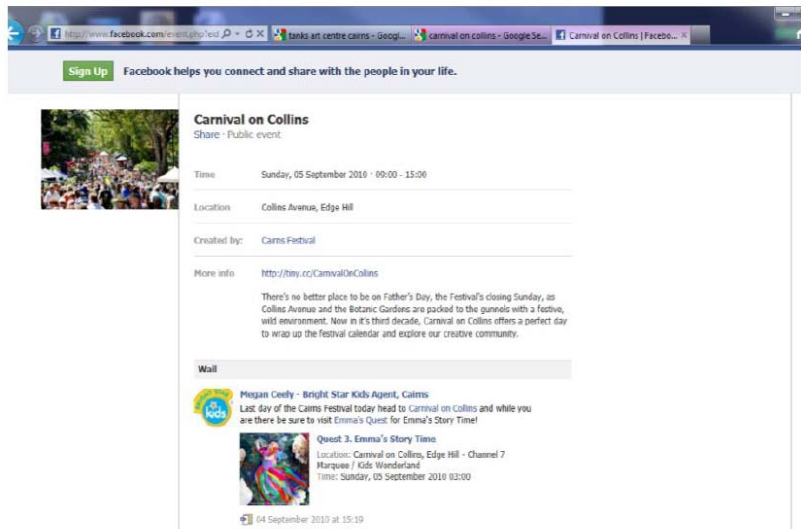
The Sustainable Living Area  
 funded by  
  
 Sponsored by  
  
  
 Carnival on Collins is the grand finale of the Cairns Festival and attracts tens of thousands for a great day out.  
 As one of the most popular events on the Cairns Festival calendar, Carnival on Collins is the ideal way to spend Father's Day Sunday.  
 This year Carnival on Collins celebrates its 21st birthday.  
 Featuring around 200 stalls, including plant stalls, lifestyle products, arts and crafts, food and refreshments.  
 Three exciting stage of live entertainment, and a free...



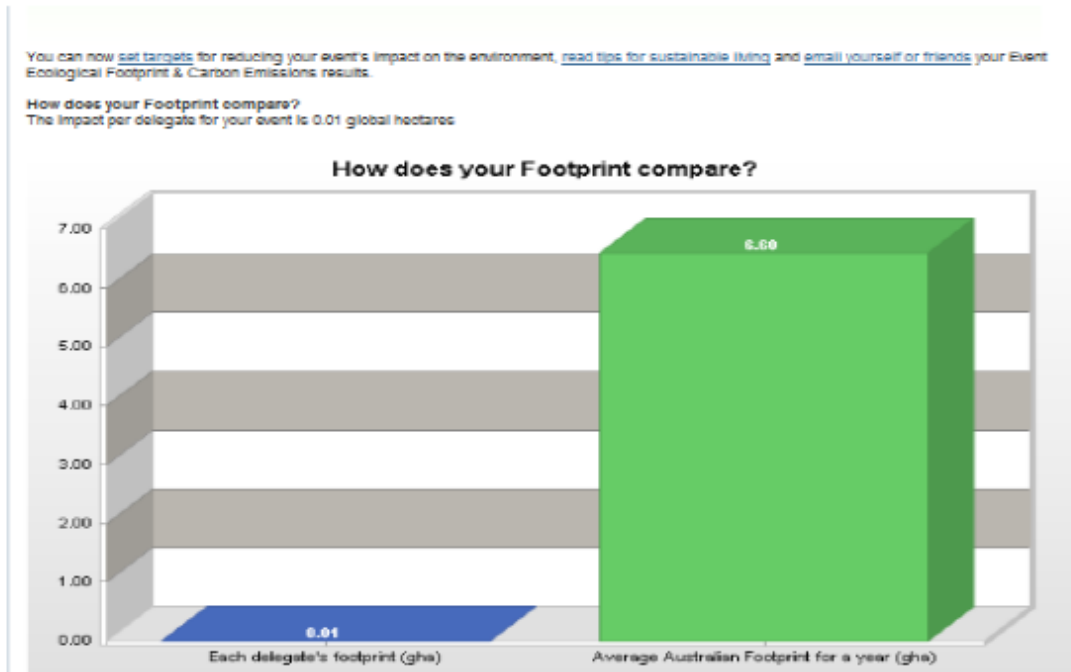
Photo 16: Boiling the jug with pedal power

One of the most popular and interactive aspects was the display from the Holloways Beach Environment Centre, where visitors had the opportunity to try and generate enough power to either run a light or make a cup of coffee. Most visitors commented on “how hard it was to generate enough energy to turn on the lights” and “wondered how fit they would have to be to power the TV for their favourite program.”

Another innovation this year was the “Carnival on Collins Facebook page”, which was another low eco-footprint mechanism to promote the day, in a manner which reduced energy use to print or the generation of waste.



**9 Where to from here ?**



As evidenced by the graph, the footprint of the individuals attending this event is very low, but is only for one day. The illustration at right shows the average Australian footprint for a year in global hectares, and that is substantially higher than the Global Footprint 'sustainable figure' of 2.5 global Ha per person.

There are still therefore, opportunities for improvement in current performance and these have been identified within the document. Of these, future monitoring of the estimated environmental costs of some as yet un-defined aspects of the business –

- What is required to justify (fund) increased operation of a 'shuttle bus' to transport visitors.
- More accurate quantification of waste stream
- Quantification of water used – including all drinks offered
- Breakdown of food served to more clearly define meat, vegetables, dairy etc.

**9.1 Offsets**

The Cairns Regional Council "Climate Change Strategy 2010 – 2015 (2010) states the following:

**6.4 The role of offsets in achieving carbon neutrality**

Council will follow the hierarchy of "measure, avoid, reduce, offset" on the path to becoming carbon neutral.

<p>MEASURE EMISSIONS</p> <p>↓</p>	<p>Council will measure their emissions by implementing an Energy and Emissions Data Management System.</p>
<p>AVOID AND REDUCE EMISSIONS</p> <p>↓</p>	<p>Council will avoid, reduce and replace emissions through the mitigation actions listed in the Implementation Plan, the GHG Mitigation Action Plan and the Climate Change Adaptation Action Plan.</p>
<p>OFFSET EMISSIONS</p>	<p>Council will offset residual emissions to achieve carbon neutrality.</p>

A number of the initiatives are suggested in this report, which if implemented, will reduce this footprint significantly. To further reduce the footprint to what is defined as 'carbon neutral', it could again be offset, utilising the North Queensland Green Corridor offset calculation methodology (Green Corridor Project 2006) by planting 4.8 trees per tonne of Carbon. This recognised best practice revegetation project suggests that 4 trees offset 1 tonne of carbon in a tropical environment with high rainfall and growth rates.

Therefore a calculation can be made of how many trees per year the event participants and organisers could plant to offset the carbon footprint of the event:

Year	CO2 e tonnes	Trees (*4.8)
2010	113.3	554
2011	110.68	530

Discussions could also be held with participants to identify other possibilities not currently considered as "offsets" in the traditional definition but may be considered as social offsets, from a sustainability perspective.

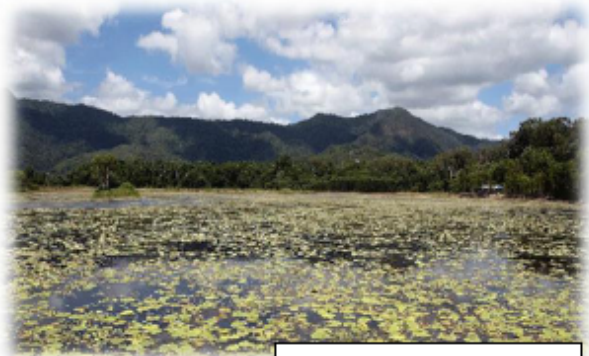


Photo 18: Cattana Wetlands

In line with the Cairns Regional Council Carbon Emissions Reductions Policy (Dec 2009) that states Council will "Maintain a commitment to restoring and planting native vegetation to offset carbon emissions" to offset event emissions by the planting of locally provenant trees on the Cattana Wetlands site at Smithfield. This site has already had a number of revegetation projects undertaken at the site, and is the current focus site for rehabilitation activities undertaken

by the Cairns Regional Council staff and its supported community revegetation group – Treeforce, the community and potentially visitors to the area, offsetting their carbon footprint by engaging in ongoing revegetation works across the site.



Cairns Post article (May 2011)

## 10 Conclusion

This year's Carnival on Collins Event was again promoted to show high of ideals in sustainable thinking and mitigation of eco-footprint. This audit externally verifies that commitment and measures against the benchmark set in 2010. From the results of this audit, the trend graph shows that the footprint appears to have risen compared to the first years audit overall, however it actually reflects the greater detail of data that has been captured to quantify the footprint in key areas of energy use and food (drinks) sold. It is normal that the second and third audit may give a higher result than the benchmark due to this factor.

Previous and ongoing decisions and practices confirm the organiser's intent to support Cairns Regional Council sustainability commitments to minimize their footprint has been successful despite the slightly higher figure in 2011. There are still a few minor areas where immediate improvements could be considered to be made and these have been documented throughout. With awareness and continued preparedness to determine and implement the 'best available' and most appropriate strategy their regionally-recognised success should, and deserves to, continue. Cairns Regional Council is commended for going through this process and encouraged to continue it into the future.

## 11 References

All sites accessed - September 2011

Australian Greenhouse Office – access to information about Australian Government legislation and policies relating to Climate Change and Greenhouse Gas Reporting under NGERs:

[www.greenhouse.gov.au](http://www.greenhouse.gov.au)

Cairns Regional Council Policies and Strategies:

- Cairns Regional Council Climate Change Strategy 2010 - 2015
- Climate Change Adaptation Action Plan
- GHG Mitigation Action Plan
- Carbon Emissions Reduction Policy
- Waste Management Strategy
- Water Demand Management Strategy 2009-2012

CSIRO – Generator Fuel Use <http://www.csiro.au/helix/sciencemail/activities/energyuse.html>

Global Footprint Network [www.footprintnetwork.org](http://www.footprintnetwork.org)

The Missing Link Resource Coordinators Pty Ltd - provide assistance to small and medium business enterprises with initiatives to reduce the footprint: [www.the-missing-link.com.au](http://www.the-missing-link.com.au) or

[www.goinggreenbiz.com.au](http://www.goinggreenbiz.com.au)

The Tanks Arts Centre - The Tanks which is a Cairns Regional Council venue available for arts activities in the Cairns region. [www.tanksartscentre.com](http://www.tanksartscentre.com) and [www.cairns.qld.gov.au](http://www.cairns.qld.gov.au)

Victorian EPA website of Ecofootprint calculators, including the event calculator utilised primarily for this calculation:

- [www.epa.vic.gov.au/ecologicalfootprint/calculators/event/introduction.asp](http://www.epa.vic.gov.au/ecologicalfootprint/calculators/event/introduction.asp)
- [www.epa.vic.gov.au/ecologicalfootprint/calculators/default.asp](http://www.epa.vic.gov.au/ecologicalfootprint/calculators/default.asp)



Photo 19 by tanetahi (2011)