



Gender & Disaster Australia

# Bundaberg

DISASTER CONTEXT

Socio-demographics from  
a gendered perspective





# Bundaberg (QLD)



The LGA of Bundaberg region.  
From <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>





## INTRODUCTION

The city of Bundaberg is located at the southern tip of the Great Barrier Reef, about 350 km north of Brisbane.<sup>1</sup> It is located 12 km inland,<sup>2</sup> on the Burnett river, with the mouth of the river located just north of the city.<sup>3</sup> The city is the centre for commerce and services, as well as a distribution point for the region. It has a port and a regional airport.<sup>4</sup> Rivers in the Bundaberg region include the Burnett River, the Isis River, the Gregory River and the Kolan River.<sup>5</sup> The traditional owners of the region are the Taribelang Bunda, Gooreng Gooreng, Gurang, and Bailai Peoples.<sup>6</sup> Bundaberg Regional Council was created on 15 March 2008 when Bundaberg City Council, Burnett Shire, Isis Shire and Kolan Shire Councils merged.<sup>7</sup> It has an area of 6,451 km<sup>2</sup> and a population of 99,215 people.<sup>8</sup> The population is expected to grow to 141,000 people by 2035.<sup>9</sup>

The region's key industry sectors include agriculture, forestry and fishing (worth approximately \$1.2 billion), health and aged care (worth \$870 million in 2017/2018, noting that 21% of the population was over 65 at that time), tourism and hospitality (\$301 million in 2017/2018), manufacturing (\$977 million in 2017/2018) and property and construction (\$983 million worth of output during 2017/2018).<sup>10</sup> Bundaberg is known as the food bowl capital of Australia, producing 70% of Australian sweet potatoes, 50% of Australian macadamia nuts and being the largest passionfruit growing region in Australia. The region also has 6600 local businesses.<sup>11</sup>

Although not frequent, major floods can occur when there is a tropical low pressure system, and heavy rainfalls may provoke significant river level rises and floods. Flooding can cause important damage to rural properties and to commercial and residential areas in small towns and in the city of Bundaberg. Major floods occurred in 1875, 1890, 1893, 1928, 1942, 1954, 2010, and 2013. There is an average of about eight thunderstorms per year on the coast. The most recent event was a focussed tornado storm in Bundaberg in November 2017, which caused flash flooding.<sup>12</sup> It is projected that by 2100, Queensland's coastline will experience a sea level rise of 0.8 metres and that tropical cyclones, although becoming less frequent, will be more intense and may track further south.<sup>13</sup>

The most recent major disaster is the January 2013 Bundaberg floods, the largest flood recorded in Bundaberg.<sup>14</sup> During this event, the Burnett River reached 9.53 metres at Bundaberg (about 7.34 metres above Highest Astronomical Tide, the highest level possible with average meteorological conditions and any combination of astronomical conditions).<sup>15</sup> The flood events of February 2015, March and April 2017 and October 2017 were less significant, with the river reaching a peak of 2.7 metres at Bundaberg in October 2017<sup>16</sup>. Consequently, this factsheet will focus on the 2013 floods.

1 <https://profile.id.com.au/bundaberg>

2 <https://www.police.qld.gov.au/sites/default/files/2022-11/BundabergDDMP.pdf>

3 <http://www.bom.gov.au/qld/flood/brochures/burnett/burnett.shtml>

4 <https://www.investbundaberg.com.au/our-region/>

5 <https://www.police.qld.gov.au/sites/default/files/2022-11/BundabergDDMP.pdf>

6 <https://www.bundaberg.qld.gov.au/>

7 <https://www.bundaberg.qld.gov.au/our-history>

8 <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>

9 <https://www.bundaberg.qld.gov.au/downloads/file/146/2014-2015-annual-report>

10 <https://www.bundaberg.qld.gov.au/us/economic-development/3>

11 <https://www.investbundaberg.com.au/>

12 <https://www.police.qld.gov.au/sites/default/files/2022-11/BundabergDDMP.pdf>

13 <https://www.ourbundabergregion.com.au/68965/widgets/367120/documents/227396>

14 <https://higherlogicdownload.s3.amazonaws.com/IPWEA/d084dcf4-6215-4255-a0bd-255ce5299a58/UploadedImages/QLD%20Conferences/Cairns%202013/Papers%20Presentations/Bundaberg%20Floods%20-%20The%20science%20behind%20the%20story%20-%20DH.pdf>

15 <https://www.ms.qld.gov.au/tides/notes-and-definitions>; <http://www.bom.gov.au/qld/flood/brochures/burnett/burnett.shtml>

16 <https://www.bundaberg.qld.gov.au/flood-gauge-mapping-system>



Following a dry period in the region in 2012, in January 2013, ex-cyclone Oswald transformed into a rain depression and moved from central Queensland to Gladstone (north of the Bundaberg region). On 26 January, between 300 and 450 mm of rain fell over twelve hours in the North Burnett region (west of Bundaberg), causing numerous creeks and streams to break their banks and inundating hundreds of homes. In the Bundaberg region, Wallaville and the city of Bundaberg were affected. On the same day, five unexpected tornadoes hit the coast near Bundaberg in the towns of Bargara, Burnett Heads and Elliott Heads, causing significant damage (including a tree crashing a car and trapping its occupants and roofs blown off). The high levels of the Burnett River then threatened the residents of North Bundaberg. By the afternoon of 27 January, 1000 people had been rescued or evacuated. Emergency evacuation centres were set up to host the 2000 displaced people (some of whom were injured, sick or aged). The situation had stabilised by the night of 27 January. The recovery effort started on Monday 28 January, even though the Burnett River had not yet peaked. Resources had begun to arrive by air and road (from the south).<sup>17</sup>

Very little academic research has explored the 2013 Bundaberg floods. In one article, Pisani and Mackay (2017) explore the effects of floods on the inhabitants of North Bundaberg, and the healing process. The suburb of North Bundaberg had already been severely impacted by the 2011 floods, and was again severely impacted by the 2013 floods while still recovering. Thousands of people had to evacuate, and the floods damaged and destroyed homes, businesses and personal properties. People in the region affected by the disaster were immediately impacted by shock, stress, trauma and guilt. The floods created several social and economic issues for North Bundaberg including a crash of real estate prices, residents moving away after losing their homes, and the exacerbation of prejudice against the area as “an ugly part of town”, “full of mosquitoes” with few social or recreational options.

After the suburb’s reconstruction and repair, residents felt the suburb was no longer a reflection of the community. Art and projects created with the community and organisations allowed the restoration of its character and a sense of pride and belonging.<sup>18</sup>

<sup>17</sup> Watson, J. (2016). Incident management in Bundaberg during the 2013 Queensland floods in *Incident Management in Australasia Lessons Learnt from Emergency Responses*, eds Kent MacCarter, Stuart Ellis Csiro Publishing, 17-43.

<sup>18</sup> [https://eprints.qut.edu.au/214388/1/iss3-05%2B-%2Bafter%2Bthe%2Bfloods%2B\\_%2Binplace.pdf](https://eprints.qut.edu.au/214388/1/iss3-05%2B-%2Bafter%2Bthe%2Bfloods%2B_%2Binplace.pdf)



## DISASTER BACKGROUND

Kind of disasters affecting this region/town: wildfires, floods, storms, tropical cyclones (category 3+), earthquakes, tornadoes, tsunamis<sup>19</sup> and heatwaves.<sup>20</sup>

Recent disasters in the LGA include:<sup>21</sup>

- October 2017, flood event<sup>22</sup>
- March/April 2017, flood event<sup>23</sup>
- Flood event, February 2015<sup>24</sup>
- Ex-tropical cyclone Oswald, January 2013 - causing major floods
- Floods, March 2011
- Bundaberg Floods, December 2010
- Queensland Floods, November 2010
- Floods, March 2010
- August 2007, severe storms
- December 2004, severe storms
- March 2003, severe storms

Recent major disaster: January 2013 ex-tropical cyclone Oswald and major flooding

- Fatalities: 6<sup>25</sup>
- People displaced:
  - o 7500 people in total<sup>26</sup>
  - o On 27 January, there was a voluntary mass evacuation of North and East Bundaberg. On 28 January, as the Burnett river continued to rise, a mandatory evacuation of North Bundaberg was ordered. Rescue services proceeded to evacuate several retirement villages, conducting the largest air evacuation in Australia's history with 24 helicopters rescuing about 850 people over 48 hours.<sup>27</sup>

<sup>19</sup> <https://www.police.qld.gov.au/sites/default/files/2022-11/BundabergDDMP.pdf>

<sup>20</sup> <https://www.bundaberg.qld.gov.au/disaster-management/disaster-hazards/5>

<sup>21</sup> Unless specified, the information come from: <http://hardenup.org/be-aware/your-area/bundaberg>

<sup>22</sup> <https://www.bundaberg.qld.gov.au/flood-gauge-mapping-system>

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.

<sup>25</sup> Davies, L. (2013). Feature story: Red Cross leads flood recovery. *National Emergency Response*, 26(2), 16-17.

<sup>26</sup> <https://www.smh.com.au/environment/weather/bundaberg-residents-face-anxious-wait-20130130-2djfl.html>

<sup>27</sup> <https://higherlogicdownload.s3.amazonaws.com/IPWEA/d084dcf4-6215-4255-a0bd-255ce5299a58/UploadedImages/QLD%20Conferences/Cairns%202013/Papers%20Presentations/Bundaberg%20Floods%20-%20The%20science%20behind%20the%20story%20-%20DH.pdf>



- Properties and infrastructure affected:<sup>28</sup>
  - o In Bundaberg:
    - 448 houses were severely affected
    - 882 had medium damage
    - 837 had minor damage
    - The Hinkler Central Shopping Centre was entirely inundated.
  - o In the region:
    - Approximately 4040 houses and more than 600 businesses were affected by the disaster
    - There were significant losses and damage to farms, crops and infrastructure.<sup>29</sup>
  - o The bill from the disaster in Queensland was more than \$2.5 billion, as the floods added to the important costs caused by other previous natural disasters.<sup>30</sup>

## ECONOMIC DISADVANTAGE

- Bundaberg LGA is ranked:<sup>31</sup>
  - o 111 out of 544 LGAs in Australia (where 544 is most advantaged)
  - o in the 3rd decile (out of 10, where 10 is most advantaged)
  - o in the 21<sup>st</sup> percentile (out of 100, where 100 is most advantaged)

## HOUSING AFFORDABILITY AND HOMELESSNESS

- Housing affordability
  - o Median rent: \$285/week (QLD: \$365/week | Aus: \$375)<sup>32</sup>
  - o Renter households where rent payments are greater than 30% of household income: 35.4% (QLD: 32.3% | Aus: 32.3%)<sup>33</sup>
  - o For a household on the median income for Bundaberg LGA (around \$60,000<sup>34</sup>), rental accommodation is classed “unaffordable” for postcode 4670 (Bundaberg).<sup>35</sup>

<sup>28</sup> Unless specified, the information comes from: <https://higherlogicdownload.s3.amazonaws.com/IPWEA/d084dcf4-6215-4255-a0bd-255ce5299a58/UploadedImages/QLD%20Conferences/Cairns%202013/Papers%20Presentations/Bundaberg%20Floods%20-%20The%20science%20behind%20the%20story%20-%20DH.pdf>

<sup>29</sup> Davies, L. (2013). Feature story: Red Cross leads flood recovery. *National Emergency Response*, 26(2), 16-17.

<sup>30</sup> Connors, R. (2013). Industry news. *REIQ Journal*, (Jun).

<sup>31</sup> <https://search-informit-org.ezproxy.lib.rmit.edu.au/doi/epdf/10.3316/ielapa.424741135845545>  
<https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2033.0.55.0012016?OpenDocument>  
 (third data cube LGA Indexes, SEIFA 2016)

<sup>32</sup> <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>

<sup>33</sup> <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>

<sup>34</sup> weekly income X 52; weekly income data available at: <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>

<sup>35</sup> <https://sgsep.com.au/projects/rental-affordability-index>, using postcodes 4670 (only data available)



- Homelessness:

	2021-2022	2014-2015 <sup>36</sup>
Number of people who accessed Specialist Homelessness Services in Bundaberg <sup>37</sup>	443	1,327
Percentage of the population <sup>38</sup>	0.45%	1.36%
Rate per 10,000 inhabitants <sup>39</sup>	45	136
Number of men who accessed Specialist Homelessness Services in Bundaberg <sup>40</sup>	196 (40 for 10,000) <sup>41</sup>	247 (49 for 10,000) <sup>42</sup>
Number of women who accessed Specialist Homelessness Services in Bundaberg <sup>43</sup>	638	689

36 Most recent data available after the 2013 floods

37 Data cube: SHSC geographical location of client—LGA. Available here: <https://www.aihw.gov.au/reports/homelessness-services/shsc-data-cubes/contents/specialist-homelessness-services-collection-shsc-data-cubes>

38 Calculation: Number of people divided by the population of the LGA of Bundaberg (available here for 2021-2022: <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820> and here for 2014-2015 <https://www.bundaberg.qld.gov.au/downloads/file/146/2014-2015-annual-report>), multiplied by 100 for the percentage.

39 Calculation: Number of people divided by the population of the LGA of Bundaberg (available here for 2021-2022: <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820> and here for 2014-2015 <https://www.bundaberg.qld.gov.au/downloads/file/146/2014-2015-annual-report>), multiplied by 10,000 for the rate.

40 Data cube: SHSC geographical location of client—LGA. Available here: <https://www.aihw.gov.au/reports/homelessness-services/shsc-data-cubes/contents/specialist-homelessness-services-collection-shsc-data-cubes>

41 Calculation: Number of men divided by the male population of the LGA of Bundaberg (available here for 2021-2022: <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>) multiplied by 10,000 for the rate

42 Calculation: Number of women divided by the female population of the LGA of Bundaberg (available here for 2021-2022: <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>) multiplied by 10,000 for the rate

43 Data cube: SHSC geographical location of client—LGA. Available here: <https://www.aihw.gov.au/reports/homelessness-services/shsc-data-cubes/contents/specialist-homelessness-services-collection-shsc-data-cubes>





## MENTAL HEALTH

- Mental health conditions (any): 11.6% (QLD: 9.6% | Aus: 8.8%)<sup>44</sup>
- In Statistical Area 3 Bundaberg, there were 96 deaths between 2017 and 2021.<sup>45</sup>
- Suicide rate for Statistical Area 4 (SA4)<sup>46</sup> Wide Bay in which Bundaberg sits, the state of Queensland, and Australia as a whole:<sup>47</sup>

Area	SA4 Wide Bay	Queensland	Australia
Age-standardised suicide rate per 100,000 population	22.8	15.6	12.6
Rate for males	39.2	24.3	19.2
Rate for females	7.2	7.2	6.1



## GENDER EQUALITY

### *Lone parent status*<sup>48</sup>

- One-parent families (Bundaberg LGA): 17.5% (QLD: 16.8% | Aus: 15.9%) – 80.3% female-led (QLD: 80.0% | Aus: 80.4%)

### *Mothers' index*<sup>49</sup>

- Bundaberg is ranked 44 of 74 LGAs in QLD where 1 is the 'best place for a mother to live'.

### *Unpaid care*<sup>50</sup>

- Unpaid domestic work
  - o 16,094 men did more than 5 hours of unpaid domestic work per week compared to 24,137 women
- Unpaid assistance to a person with a disability
  - o 4,433 men compared to 6,932 women provided unpaid assistance
- Unpaid childcare
  - o 7,460 men compared to 10,648 women provided childcare (whether for their own child or other children)

<sup>44</sup> <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>

<sup>45</sup> Data table: 2021 National Mortality Database - Suicide, available at: <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/data-downloads>

<sup>46</sup> SA3 and SA4 areas can be found here: <https://sosearch.com.au/australian-sa-printable-maps/>

<sup>47</sup> Data table: 2021 National Mortality Database - Suicide (table 10 for SA4 and 11 for SA3), available at: <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/data-downloads>

<sup>48</sup> <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>

<sup>49</sup> The mothers' index consists of composite scores from five different indicators relating to maternal wellbeing (maternal health, children's wellbeing, educational status, economic status and socio-economic disadvantage), with each indicator given equal weighting. Scores were sorted from low to high and ranked from 1 to 74 (1 being the best place for a mother to live) to give the overall Mothers Index rank for each LGA in QLD. <https://apo.org.au/node/63692>

<sup>50</sup> ABS General Community Profile for LGA Bundaberg, Tables G24-G26, available here: <https://abs.gov.au/census/find-census-data/community-profiles/2021/LGA31820>



*Violence against women*

- In 2022, in the Wide Bay Burnett district, in which Bundaberg is located:<sup>51</sup>
  - o 537 sexual offences were reported
  - o 2933 domestic violence protection orders were breached (this figure has risen constantly since 2013, when 688 orders were breached)

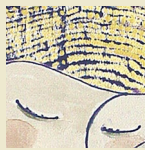
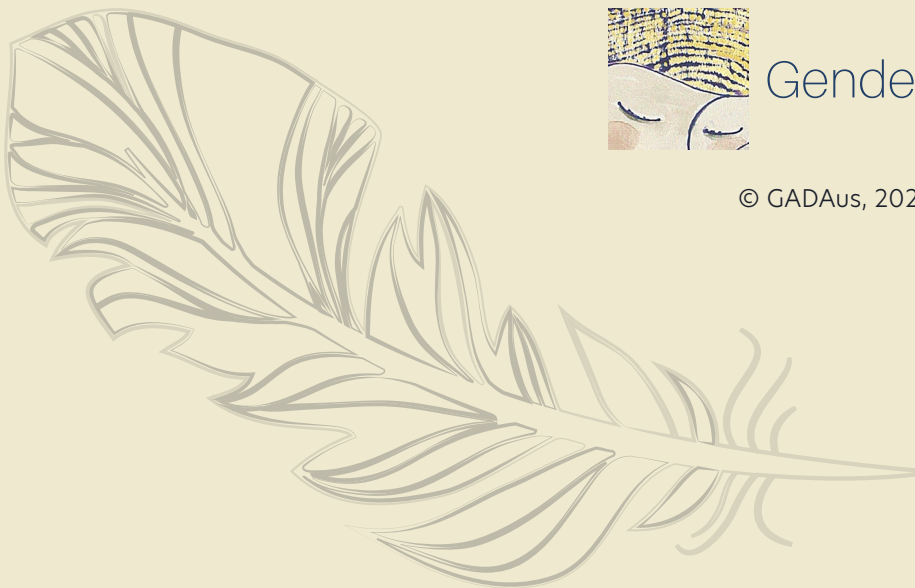
**DEMOGRAPHIC INFORMATION FOR BUNDABERG LGA COMPARED TO QUEENSLAND AND AUSTRALIA**

	Bundaberg LGA <sup>52</sup>	Queensland	Australia
Median age	47	38	38
Indigenous status	5.0%	4.6%	3.2%
Both parents born in Australia	68.0%	53.4%	45.9%
Non-English language used in household	6.6%	15.6%	24.8%
With university education	11.7%	21.9%	26.3%
Year 10 as highest qualification	17.5%	11.9%	10.0%
Part-time workers	32.7%	30.5%	31.2%
Unemployed	6.8%	5.4%	5.1%
Personal income	\$594/week	\$787/week	\$805/week
Household income	\$1,157/week	\$1,675/week	\$1,746/week
Rate of people on Disability Support Pension per 10,000 population <sup>53</sup>	537	309	296

51 <https://mypolice.qld.gov.au/bundaberg/queensland-crime-statistics/>

52 <https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>

53 <https://data.gov.au/data/dataset/dss-payment-demographic-data>; calculated by dividing number of DSP recipients listed in spreadsheet in footnote DSS Demographics - March 2021 by population of LGA (<https://abs.gov.au/census/find-census-data/quickstats/2021/LGA31820>) state (<https://abs.gov.au/census/find-census-data/quickstats/2021/3>) and Australia (<https://abs.gov.au/census/find-census-data/quickstats/2021/AUS>), multiplied by 10,000



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