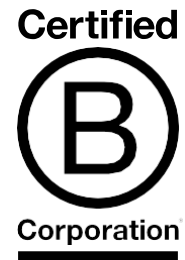




ECONOMIC RECOVERY AFTER DISASTER STRIKES

A REPORT FOR SUNCORP



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This report considers the role of insurance in restoring local economic activity and reducing the long-term impact of natural disasters. The analysis looks at the experience of three recent natural disasters: Cyclone Debbie, Tathra's bushfires and Hobart's floods. All three disasters had a devastating effect on local communities and economic activity, but we find that insurance payouts alleviate the economic impacts.

Previous studies estimated the permanent impact of disasters without considering the economic impact of insurance payouts made to those affected. This report models the economic experience of three typical Australian regional and urban centres in the aftermath of natural disasters. We find that without insurance it is possible that a regional town may never fully recover from a disaster as damage can lead to a permanently impaired economic capacity.

Small towns are the backbone of regional Australia with one in ten Australians living in towns with populations of less than 10,000 people. In the 2016 census there were about 1,700 such towns in Australia. These towns often have limited options when disaster strikes and benefit more from the economic stimulus of insurance than urban centres.

Insurance payouts help to stabilise the local economy and offset the initial impact to the economy following the disaster. Over time, the economic stimulus from claims payouts and recovery activity encourages a faster return to normal economic activity.

In 2017, the immediate economic impact of Cyclone Debbie across all of Queensland and northern New South Wales before insurance payments was estimated to be a \$7.1 billion decline, or a 2.2 per cent reduction in GDP. In Airlie Beach and surrounding areas in the Whitsundays, the immediate impact on local GDP was as much as a 64.2 per cent decline.

The claims and recovery activity from Suncorp insurance over 2017-18 boosted the local economies impacted by the cyclone and offset the immediate decline in GDP (compared to a scenario of no insurance payouts). In the first year following Cyclone Debbie, the economic boost from insurance activity was estimated to be \$2.7 billion (or an 0.8 per cent boost to GDP). In the following year, an additional \$1.9 billion was added to GDP. The cumulative economic impact over five years is estimated to be \$6.3 billion offsetting almost all the immediate impact of the disaster.

The Tathra bushfires on the New South Wales south coast hurt the local economy by an estimated \$207 million, or a 33.7 per cent decline in local GDP and hit the town's main industry tourism. In this case, Suncorp insurance payouts boosted the economy by \$4 million or 1 per cent to local GDP.

Following Hobart's floods, the claims and recovery activity payouts by Suncorp boosted the GDP of Hobart by over \$94 million or 0.5 per cent in 2018.

For the following year, as the Suncorp payouts and recovery activity continue to flow through the local economy, an additional \$47 million or 0.3 per cent will be added to GDP. The improved economic performance will continue to at least 2020, with the economy being \$36 million better off because of Suncorp claims and recovery activity.

We find that insurance plays a significant role in mitigating adverse outcomes and helping to restore normal economic activities following disasters regardless of their size. This is particularly the case in regional areas which have a high reliance on capital intensive sectors like resources, agriculture, and tourism. The value of insurance is clear for areas that have limited employment opportunities, or a narrower economic base compared to urban areas that can absorb the economic losses of a disaster more easily.

With large parts of Australia at growing risk from tropical cyclones, bushfires, storms and floods, the importance of insurance is only increasing. Natural disasters are a traumatic experience for all those involved, however with insurance the impact of disasters doesn't have to be permanent.

GLOSSARY

TERM	DEFINITION	ABBREVIATION
Australian Statistical Geography Standard	The Australian Statistical Geography Standard is the Australian Bureau of Statistics' geographical framework.	ASGS
Bureau of Meteorology	The Bureau of Meteorology is Australia's national weather, climate and water agency	BOM
CBD	Central Business District	CBD
Gross Domestic Product	Is the measure of income generated by an economy.	GDP
Natural Disaster Relief and Recovery Arrangements	Through the NDRRA, the Australian Government provides financial assistance directly to the states to assist them with costs associated with certain disaster relief and recovery assistance measures	NDRRA
Statistical Areas	Statistical Areas (1,2,3 or 4) are geographic units defined by the Australian Bureau of Statistics.	SA
Suncorp	Refers to all brands including: AAMI, GIO, Suncorp Insurance, Vero, APIA, Shannons, CIL and Bingle	..
UTAS	University of Tasmania	UTAS

SUNCORP BRANDS



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01

Introduction



Natural disasters, such as bushfires, floods and tropical cyclones are an enduring part of the Australian experience.



Household and business insurance provides local communities with the resilience to deal with natural disasters. This is especially important in areas of high economic activity or low socioeconomic status that are exposed to a high level of risks from natural hazards.

Natural disasters, such as bushfires, floods and tropical cyclones are an enduring part of the Australian experience. They are a traumatic event for the community involved and impact on the local economy by destroying and damaging homes, business premises and economic and social infrastructure.

In addition to the loss of physical capital, natural disasters disrupt the normal economic production which takes place within a region. Retail businesses are closed, workers can't get to the office, crops are destroyed, and factories sit idle without raw material. Depending on the scale of the natural disaster, people may choose to leave a region rather than rebuild. This loss of population then impacts on the productive capacity of the economy.

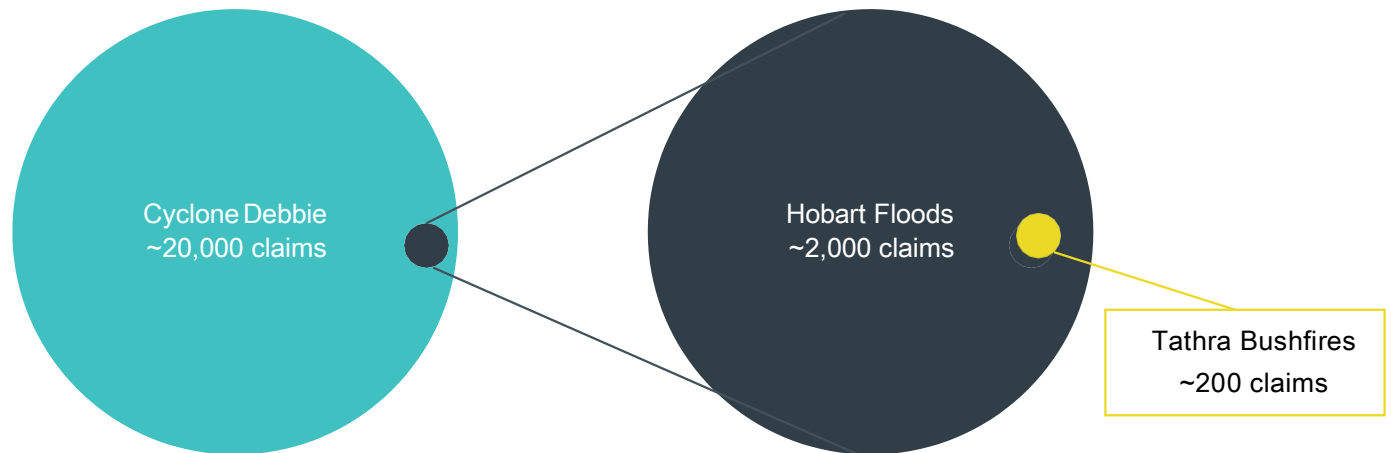
Due to the increasing prevalence and severity of natural disasters, there is a growing risk of Australia's economic performance being undermined. Household and business insurance (along with mitigation strategies) provide communities with the resilience to deal with natural disasters. This is especially important in areas of high economic activity or low socioeconomic status that are exposed to a high level of risk from natural hazards.

Suncorp is one of Australia's largest insurance companies, with over 8 million customers across Australia. Several insurance brands are owned by Suncorp, including AAMI, GIO, Suncorp Insurance, Vero, APIA, Shannons, CIL and Bingle.

To consider the economic benefit that Suncorp's insurance played over 2017-2018, three disaster events were selected, and analysis conducted with Suncorp data:

- Cyclone Debbie: March-April 2017
- Tathra bushfires: March 2018
- Hobart floods: May 2018

FIGURE 1: SCALE OF DISASTER BASED ON NUMBER OF CLAIMS



Source: Suncorp Insurance



These three events were selected as they are a magnitude of 10 different in the size of claims numbers. Based off Suncorp data, Cyclone Debbie was approximately a 20,000 claim event, Hobart's floods were around 2,000, whilst Tathra's bushfires were around 200 claims. Considered together, they provide a useful comparison of the economic impact of disasters based on size, urban versus rural, and densely versus sparsely populated areas.

The approach used has created a Gross Domestic Product (GDP) figure for the regions impacted by these disasters without insurance. Based on insurance claims data from Suncorp, the economic impact was estimated. Two scenarios, one with the stimulus of insurance claims and recovery activity flowing through the economy and the second with no stimulus, allows the impact of insurance to be isolated.

Analysis was conducted at the Statistical Area 3 (SA3) level. Statistical Areas are geographic units defined by the Australian Bureau of Statistics (ABS). SA3s are the third smallest Statistical Area and represent regions of between approximately 30,000 and 130,000 people. Analysis at the SA3 level is particularly insightful for Cyclone Debbie, which impacted large parts of Queensland and northern New South Wales.

It is important to note that many of the communities impacted by these disasters are still recovering. Depending on the severity of the disaster and damage experienced by the community recovery activity can take years.



02

Economic Modelling



Economic losses relate to the loss of economic production because of natural disasters.



Economic modelling has been used to estimate the size of the economic impact of the natural disasters and the economic benefit of insurance provided by Suncorp.

It is important to understand the difference between insurance losses and economic loss. Insurance losses related to natural disasters capture the losses accruing to insured assets (e.g. homes, motor vehicles and business premises).

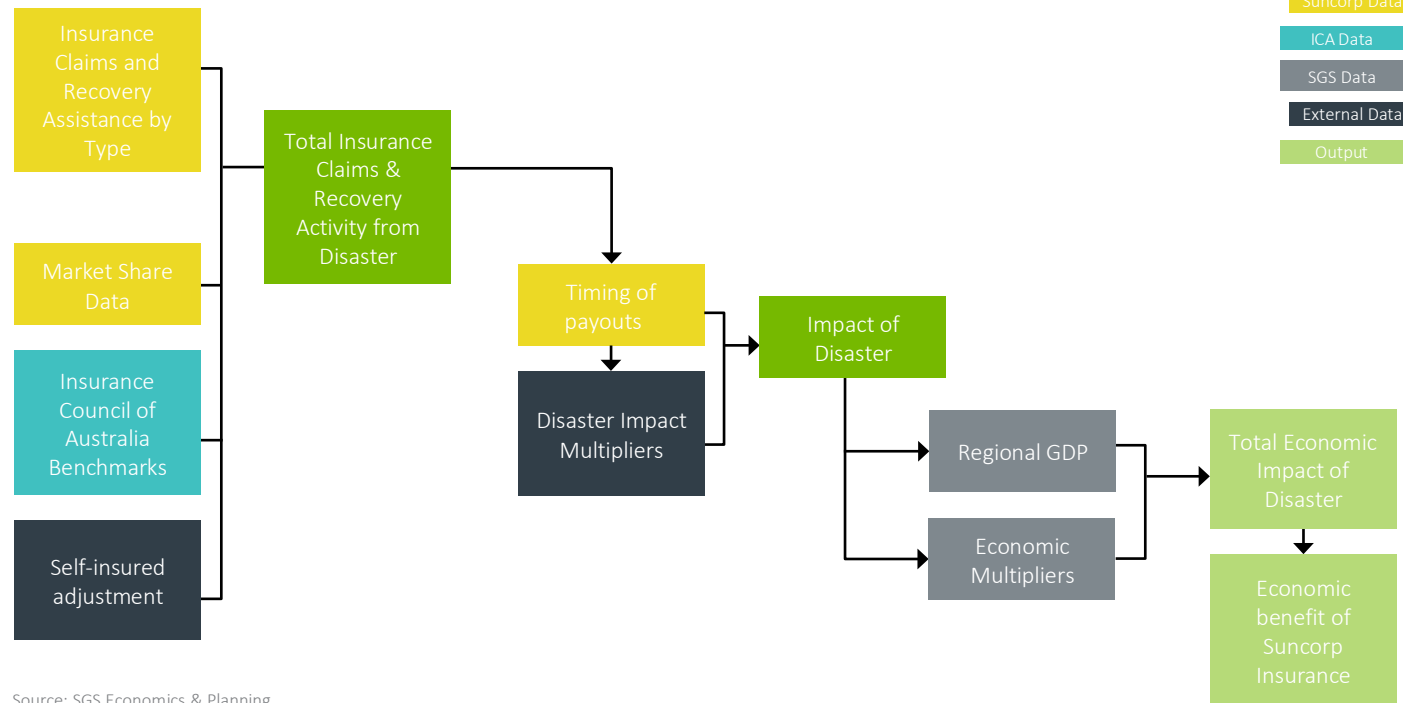
Economic losses relate to the loss of economic production because of natural disasters. For example, businesses forced to close will miss out on daily takings, workers can't reach their workplace, and factories are idle without raw materials. Depending on the scale of the natural disaster, people may choose to leave a region rather than rebuild. This loss of population then impacts the economy in the longer term.

This section briefly outlines the economic modelling used to estimate the size of the economic impact of the natural disasters and the economic benefit of insurance provided by Suncorp. It should be noted that other intangible economic benefits such as improved mental health outcomes, reduced alcohol and drug use and changes to school academic outcomes are not included in the economic modelling for this report.

The first input is insurance claims and recovery activity data from Suncorp¹. This is provided for each disaster Case Study and broken down into the following categories:

- **Home Insurance** (split into buildings, home contents and management costs)
- **Motor Vehicle Insurance**
- **Commercial Insurance** (split into motor vehicle, buildings and commercial insurance).

FIGURE 2: ECONOMIC MODELLING OVERVIEW



Source: SGS Economics & Planning

¹This includes AAMI, GIO, Suncorp Insurance, VERO, APIA, Shannons, CIL and Bingle brands



Estimates of total insurance payout for claims and recovery assistance figures for an event are based off Suncorp and market share data combined with benchmark data from the Insurance Council of Australia (ICA) for total insurance payouts, up to August 2018.

The data was provided at the post code level and was then aggregated to the Statistical Area 3 level. The date at which the insurance is paid has also been provided for each disaster.

Suncorp’s insurance claims and recovery data for the three events was collected and analysed up to August 2018 for all Suncorp brands (AAMI, GIO, Suncorp Insurance, VERO, APIA, Shannons, CIL and Bingle).

An adjustment is then made to account for households and businesses who are self-insured. There is a lack of data on the level of self-insurance. After conversations with the ICA, SGS assumed that there is a 10 per cent of households and businesses are self-insured.

Previous research undertaken by the [Bureau of Infrastructure, Transport and Regional Economics](#) and [Deloitte Access Economics](#) has examined the relationship between insurance payouts and the loss of economic production. This research produced disaster multipliers which can be used to convert insurance payouts to economic loss.

For example, if insured losses of a flood were estimated at \$1 million and the estimated multiplier is 10 then total economic cost would be estimated at \$10 million.

TABLE 1: DISASTER ECONOMIC MULTIPERS

DISASTER TYPE	MULTIPLIER	LOWER	UPPER
	USED	BOUND	BOUND
Hobart Flood	10	10	21.7
Tathra Bushfire	5.3	3	5.3
Cyclone Debbie	7.5, 8.5, 9.5*	5	9.5

*A few multipliers were used due to the scale of Cyclone Debbie across multiple areas of Queensland. See Table 2 for more detail.

Source: SGS Economics & Planning and Deloitte Access Economics

Table 1 presents the multiplier used for each of the Case Study disasters. Also presented is the upper and lower bounds used by the previous research. In the case of the Cyclone Debbie, three different disaster multipliers have been used. This is done to reflect the different strength (in terms of winds and rain) of Cyclone Debbie as it moved across Queensland and northern New South Wales.

The economic stimulus from Suncorp’s insurance claims and recovery activity categories (buildings, home contents, motor vehicle and management costs) are allocated to different expenditure categories with different economic multipliers that vary by region (as shown in Table 2).

These reflect supply chains within each region and how much expenditure is lost from the local area. Cities have higher multipliers than regional areas because they capture more stimulus. Motor vehicles have multipliers below one because cars are imported from overseas and therefore have a reduced impact on an economy.



TABLE 2: REGIONAL ECONOMIC MULTIPLIERS FOR EACH SUNCORP PAYMENT TYPE

REGION	BUILDING	CONTENT	MANAGEMENT COSTS	MOTOR VEHICLES
Greater Sydney	1.34	1.15	1.33	0.75
Rest of NSW	1.20	1.06	1.17	0.54
Greater Brisbane	1.29	1.07	1.27	0.72
Rest of Qld	1.18	1.01	1.15	0.56
Greater Hobart	1.09	1.10	1.05	0.59
Rest of Tas.	1.09	1.10	1.05	0.59

Source: SGS Economics & Planning



Two Gross Domestic Product (GDP) scenarios were generated, one with the stimulus of Suncorp insurance claims and recovery activity flowing through the economy and the second with no Stimulus. This method isolates the impact of Suncorp on the economy.

Given each disaster occurred roughly in the middle of the year, the financial year estimates of GDP were converted to calendar year estimates. This allowed a better assessment of the economic impact to be made, rather than presenting an impact for one or two months at the end of the financial year.

Detail on the GDP method used is provided in the appendix.



03

Disaster Case Studies

“ A community’s recovery pathway following a natural disaster depends on the scale of the natural disaster, the resilience of the community and the speed of the recovery process. ”

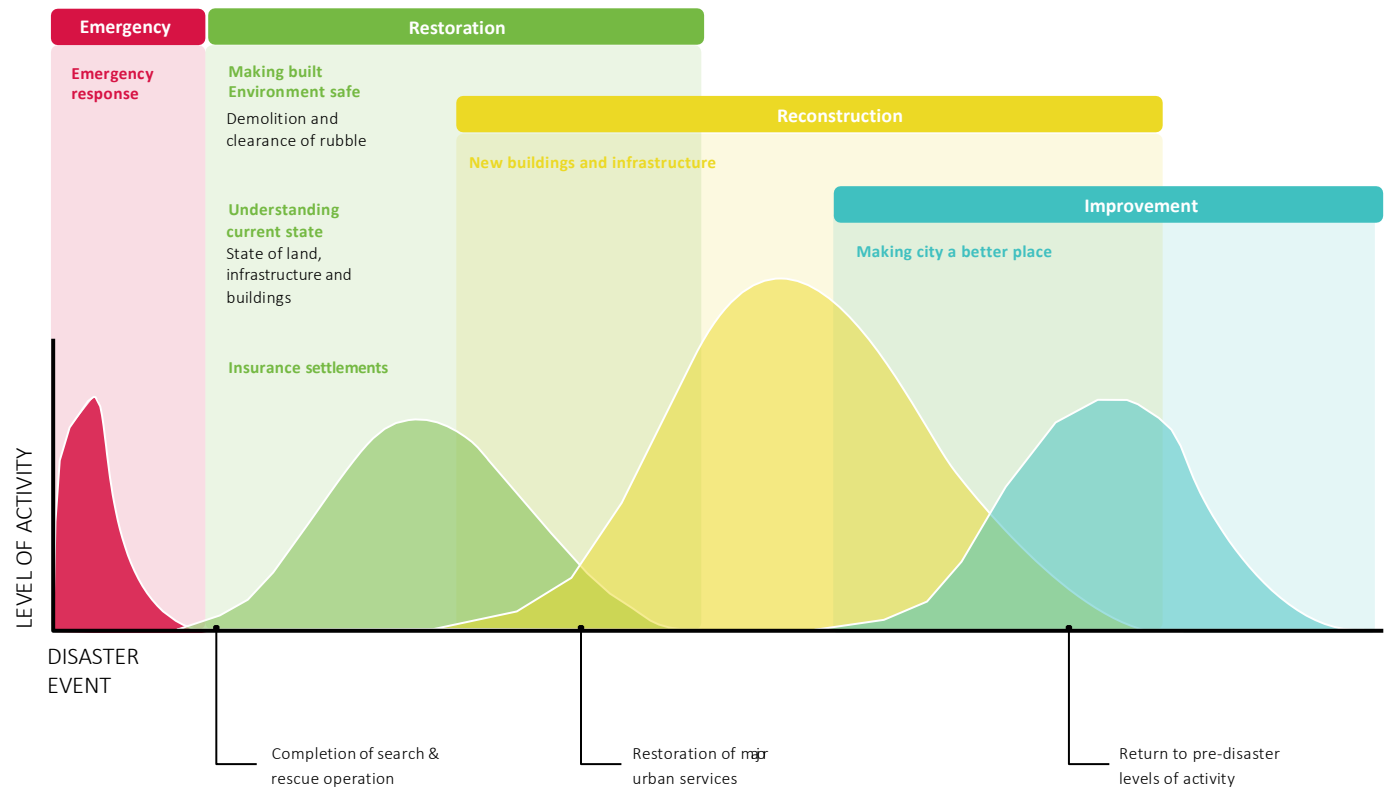
How communities respond to disaster events depends on the nature of the disaster and characteristics of the region. Three case studies, Cyclone Debbie, Tathra’s bushfires and Hobart’s floods are examined to understand the disaster response process.

Natural disasters are a traumatic experience for the affected community. A community’s recovery pathway following a natural disaster depends on the scale of the natural disaster, the resilience of the community and the speed of the recovery process.

Following a natural disaster, there are four main stages of recovery:

- **Emergency** – takes place immediately after the disaster.
- **Restoration** – work begins on the restoration of basic services and rubble and debris is cleared, buildings and the built environment are made safe. Assessments are made of the damage and insurance claims are lodged.
- **Reconstruction** – management of insurance claims and associated reconstruction begins. This is the final stage of recovery.
- **Improvement** – this is the stage where mitigation projects to prevent a repeat of the event occur. This is a longer-term stage which is not considered in our economic modelling.

FIGURE 3: PHASES OF RECOVERY FOLLOWING A DISASTER



Source: SGS Economics & Planning based on Kates (2006)

Suncorp has refined and developed its claims response with each disaster. Following an event, dedicated Suncorp teams are established and sent to the impacted area to meet customers, assess claims, work with local authorities and engage local services to rectify the customer's situation as early as possible.

Reconstruction is the phase when many buildings have been repaired / rebuilt and infrastructure repaired. The reconstruction stage lasts longer than the emergency response and restoration stages and can take years².

Insurance is an important component in natural disaster recovery. Natural disasters can destroy the productive capacity of economies and slow economic recoveries. They can drive residents and businesses to leave impacted regions. A successful recovery is measured by the ability of communities to rapidly regain what they have lost and catch up to where they could have progressed to.

Insurance payouts for claims and recovery activity provide an economic stimulus that speeds up the rate of recovery for regional economies and limits further losses of economic activity.



²R. W. Kates, C. E. Colten, S. Laska, S. P. Leatherman, Reconstruction of New Orleans after Hurricane Katrina: A research perspective (2006) <http://www.pnas.org/content/103/40/14653>

3.1 CYCLONE DEBBIE (MARCH – APRIL 2017)

OVERVIEW

Cyclone Debbie, a category four cyclone, was one of the strongest tropical cyclones to hit Queensland in recent years. Debbie made landfall near Airlie Beach at 12.40pm on 28 March 2017. Several days of extreme weather followed, impacting across the State.³ As Cyclone Debbie weakened to a tropical low, it continued to have damaging effects as it moved south into New South Wales.

The impacts from Cyclone Debbie included extreme rainfall, winds, and flooding. Off-shore wind gusts peaked at 263 kilometres per hour as the category 4 cyclone approached the coast. Once it reached the coast at Airlie Beach, Cyclone Debbie was downgraded to category 3 and quickly lost wind strength, and spared many areas from the most destructive winds.

Despite the change from a cyclone to a tropical low, the rain associated with Cyclone Debbie was the highest rainfall for March ever recorded in many locations across Queensland.

Record flooding occurred on the Logan and Albert River, and many others across the State. The Tweed River in New South Wales also saw record flooding, with flash flooding occurring from the Mackay catchment down to northern New South Wales. Over 350 Flood Watches and Warnings were issued during the event.⁴

TABLE 3: TROPICAL CYCLONE CATEGORY AND LIKELY IMPACT

CYCLONE CATEGORY	WIND STRENGTH	LIKELY IMPACT
Category 1	90- 124 km/h.	Negligible house damage. Damage to some crops, trees and caravans. Water craft may drag moorings
Category 2	125- 164 km/h.	Minor house damage. Significant damage to signs, trees and caravans. Heavy damage to some crops. Risk of power failure. Small water craft may break mooring
Category 3	165 – 224 km/h.	Some roof and structural damage. Some caravans destroyed. Power failures likely.
Category 4	225- 279 km/h.	Significant roofing loss and structural damage. Many caravans destroyed and blown away. Dangerous airborne debris. Widespread power failures
Category 5	280 km/h plus	Extremely dangerous with widespread destruction.

Source: BOM



³ABC News, 2017, 'Cyclone Debbie's eye reaches coast; BOM downgrades system to category three,' 28 March 2017, <http://www.abc.net.au/news/2017-03-28/bom-warning-cyclone-debbie-hours-from-hitting-north-queensland/8391174>

⁴Bureau of Meteorology, 2018, 'Tropical Cyclone Debbie Technical Report,' February 2018, <http://www.bom.gov.au/cyclone/history/database/Tropical-Cyclone-Debbie-Technical-Report-Final.pdf>

FIGURE 4: PATH OF CYCLONE DEBBIE



Source: Bureau of Meteorology

It is estimated that Debbie was the most dangerous cyclone since Cyclone Yasi in 2011, and the most expensive storm in Queensland's history. The State and Commonwealth governments were projected to spend at least \$2 billion repairing public infrastructure.⁵ The damage to agricultural crops was estimated to have been at least \$1 billion. Losses from coal exports were also estimated to be in the range of \$1.5 billion.⁶ Impacts were felt in the closure of airports, railways and sea ports, along with significant damage to road networks across Queensland.

Queensland's tourism sector also felt the effects, with the cyclone significantly damaging many resort islands and key tourist destinations. These included the Hamilton and Daydream Islands in the Whitsundays, and the town of Proserpine, in addition to Airlie Beach where it first made landfall. Bowen and the inland town of Collinsville were also severely impacted. The impact on the tourism sector has been estimated at between \$120 and \$180 million.⁷

Damage was done to more than 2,300 residential properties, and around 1,000 were declared uninhabitable as a result.⁸ At least six lives were lost in the cyclone and its aftermath in Queensland and New South Wales. A number of these deaths were the result of severe flooding. The immediate aftermath saw significant power outages across the State, impacting 63,000 properties.

In the first month after the disaster there were more than 100,000 requests for assistance, and \$25 million in recovery grants issued. Queensland Government funding in response to the disaster included \$10 million in assistance for primary producers, small businesses and not-for-profit organisations.⁹ The Commonwealth Government offered \$29 million in assistance after the cyclone, through the Natural Disaster Relief and Recovery Arrangements.¹⁰ Despite reimbursements and funding from the Commonwealth, the net cost to the Queensland Government is estimated to have been \$500 million.¹¹

⁵Ludlow, 2017, 'Federal taxpayers to pick up tab for Queensland cyclone,' Australian Financial Review, 24 April 2017, <https://www.afr.com/news/politics/federal-taxpayers-to-pick-up-tab-for-queensland-cyclone-20170423-gvqymk>

⁶Queensland Government, 2017, 'The Cyclone Debbie Review,' Inspector-General Emergency Management, Report 1: 2017-18, https://www.igem.qld.gov.au/reports-and-publications/Documents/Cyclone%20Debbie%20Review%20Rpt1-17-18_PUBLIC_WEB.pdf

⁷Tapim, 2017, 'Cyclone Debbie likely to cost Queensland budget \$1.5 billion,' ABC News, 24 April 2017, <http://www.abc.net.au/news/2017-04-24/cyclone-debbie-cost-repair-bill-curits-pitt-state-budget/8466192>

⁸See Queensland Government, 2017.

⁹Queensland Government, 2017, 'Cyclone Debbie recovery assistance tops \$10 million,' 23 August 2017, <http://statements.qld.gov.au/Statement/2017/8/23/cyclone-debbie-recovery-assistance-tops-10-million>

¹⁰Tapim & Aguis, 2017, 'Cyclone Debbie: Federal Government offers \$29m, not \$110m in recovery payments,' ABC News, 15 July 2018, <http://www.abc.net.au/news/2017-07-15/cyclone-debbie-queensland-federal-government-disaster-payments/8711310>

¹¹See Tapim, 2017.

As well as the immediate impact and aftermath in the days following the cyclone, there were further ongoing impacts in many areas. A year on from the disaster, many families and businesses were still recovering. Damage to roads has impacted on worker commutes. Some businesses have been out of action for significant periods to allow for repairs and upgrades.¹²

There was significant damage to Queensland industries, particularly those in agriculture. Around \$270 million in damage was done to crops, with the damage to Queensland's sugar industry alone estimated at around \$150 million.¹³

Many vegetable growers also felt significant economic losses from the loss of crops which were damaged or destroyed in the cyclone, with some losing more than half of the crops that were planted.¹⁴

This loss of production compounded economic losses from pre-cyclone low prices for produce. A mild winter and early spring, in addition to extra crops that had been planted to cover supply shortfalls, led to overproduction of vegetables just before Cyclone Debbie. Following Cyclone Debbie, when prices spiked, many growers were not able to take advantage of this due to damaged stock.¹⁵

Direct economic losses from the disaster have been estimated to be at least \$3.5 billion.¹⁶

Cyclone Debbie also had significant impacts on the environment. This included damage to the corals of the Great Barrier Reef. In some parts of the reef, 95 per cent of the coral was destroyed in the wild weather.¹⁷

CUSTOMER CASE STUDY: AIRLIE BEACH HOTEL

Positioned overlooking the idyllic Whitsundays, the iconic Airlie Beach Hotel (ABH) felt the full force of Cyclone Debbie on 28 March 2018. The ABH's accommodation, bars and retail businesses were forced to close following damaging winds and relentless rains. Restoring the ABH to working order included significant remedial renovations throughout the premises to meet new building codes and repair storm damage.

Ongoing business interruption payments, a policy benefit provided by VERO, helped meet the ABH's liabilities, such as the wages of full-time staff and loss of revenue from businesses closed for repair.

Economic recovery is slow, with tourist numbers yet to return to pre-cyclone levels, though likely to be boosted by the commencement of the Whitsunday Regional Council's \$6.4 million revitalisation of the Airlie Beach foreshore and repairs to the cyclone damaged Whitsundays Airport.



¹²Meixner, Webster, Riga & Major, 2018, 'Cyclone Debbie one year on: 'We've lost everything but we're alive,' ABC News, 28 March 2018, <http://www.abc.net.au/news/2018-03-28/one-year-anniversary-cyclone-debbie-category-four-damage/9561974>

¹³Robertson, 2017, 'Cyclone Debbie: Queensland reels at the scale of destruction,' The Guardian, 1 April 2017, <https://www.theguardian.com/australia-news/2017/mar/31/cyclone-debbie-queensland-reels-scale-destruction>

¹⁴Wilson, 2017, 'Cyclone Debbie: Falling vegetable prices cause more pain for affected growers,' Landline, 26 August 2017, <http://www.abc.net.au/news/2017-08-26/why-cyclone-debbie-had-a-lasting-impact-on-vegetable-prices/8838086>

¹⁵Reynolds, 2017, 'Dark reason for cheap tomatoes: Cyclone Debbie's final insult,' 29 September 2017, <https://www.news.com.au/finance/economy/australian-economy/dark-reason-for-cheap-tomatoes-cyclone-debbies-final-insult/news-story/905cea3fdfec05cc34d84ecc011fad98>

¹⁶See Bureau of Meteorology, 2018.

¹⁷McLeish, 2018, 'Great Barrier Reef photos show 'striking' damage to coral after Cyclone Debbie,' ABC News, 13 July 2017, <http://www.abc.net.au/news/2017-07-13/comparison-photos-striking-damage-great-barrier-reef-cyclone-qld/8702192>

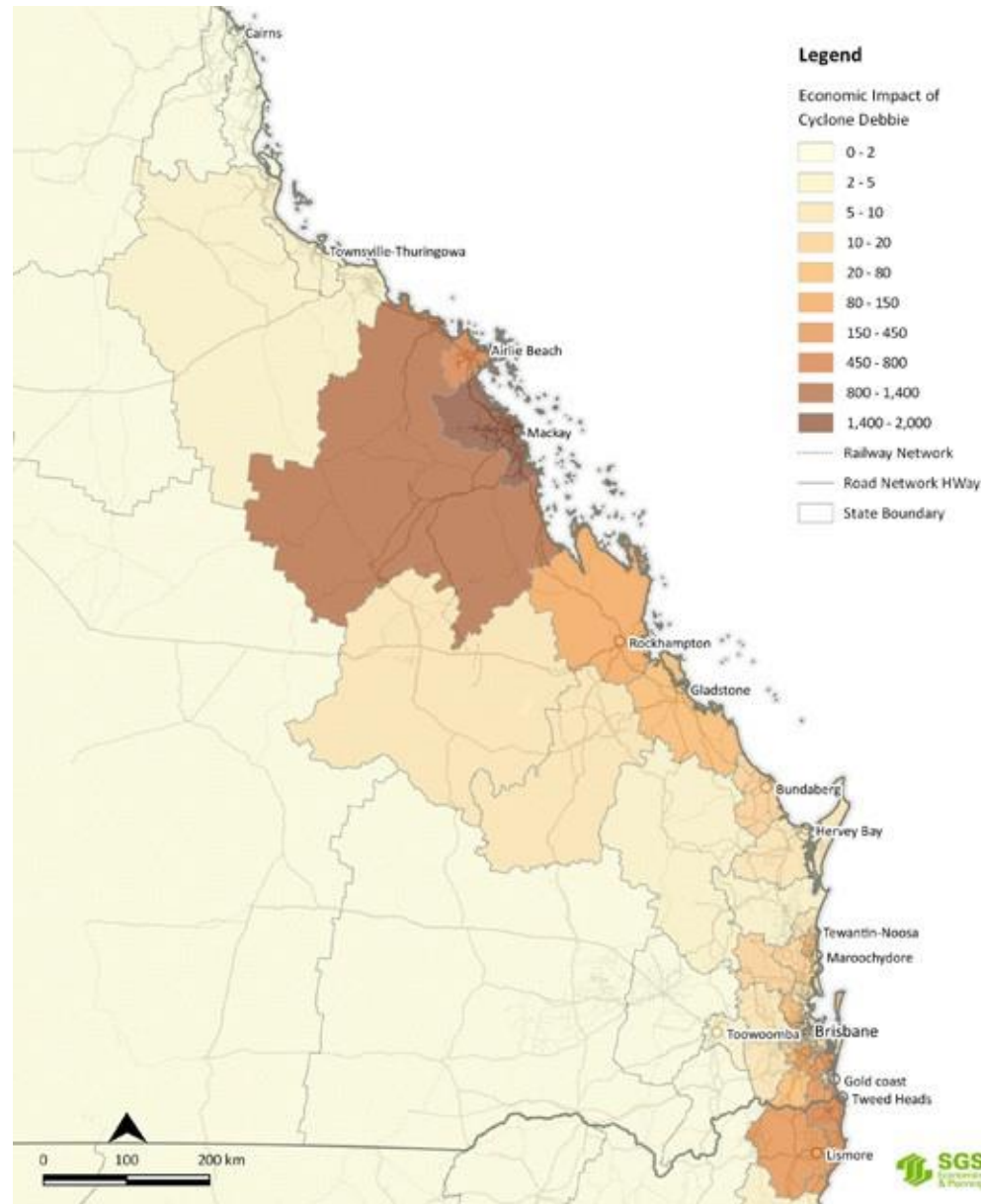
RESULTS

In 2017, the economic impact of Cyclone Debbie was estimated to be a \$7 billion reduction in GDP. This represents a 2.2 per cent decrease in GDP of the areas impacted by Cyclone Debbie. This is the result of disruption of normal economic production, loss of crops and delayed mineral exports, transfer of household and business expenditure from other uses to disaster recovery and the loss of economic infrastructure.

Figure 5 presents the reduction in GDP for each Statistical Area 3 (SA3) impacted by Cyclone Debbie. The largest impacts were where Cyclone Debbie crossed the north Queensland coast.

Communities around the Whitsunday SA3 (Hamilton and Daydream Islands, Proserpine and Airlie Beach) where it first made landfall and Mackay SA3 saw their 2017 GDP reduced by 64.2 per cent and 28.4 per cent respectively. The Gold Coast Hinterland felt a significant impact on GDP of around 36.2 per cent due to heavy rains¹⁸ and flash flooding from the cyclone¹⁹.

FIGURE 5: GROSS DOMESTIC PRODUCT SA3 IMPACT OF CYCLONE DEBBIE (\$ MILLION)



¹⁸In excess of 300 millimetres on the 31st of March 2007

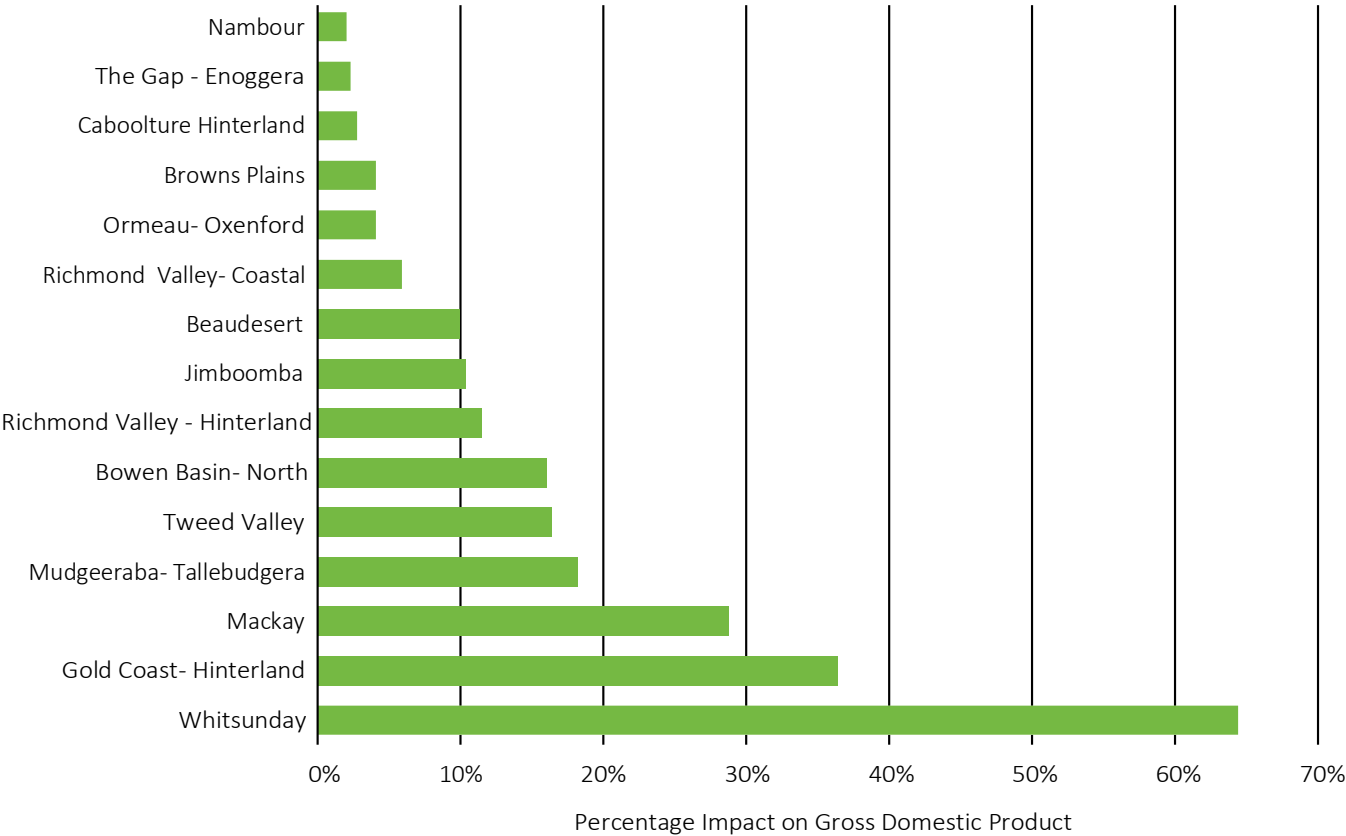
¹⁹At this point Cyclone Debbie had been downgraded to a tropical depression

Source: SGS Economics & Planning

Figure 6 presents the 15 SA3s which experienced the largest impact on their 2017 GDP from Cyclone Debbie. Table 4 in the appendix provides the data for Figure 6. Suncorp played a substantial role in assisting the process of economic recovery in the aftermath of Cyclone Debbie.

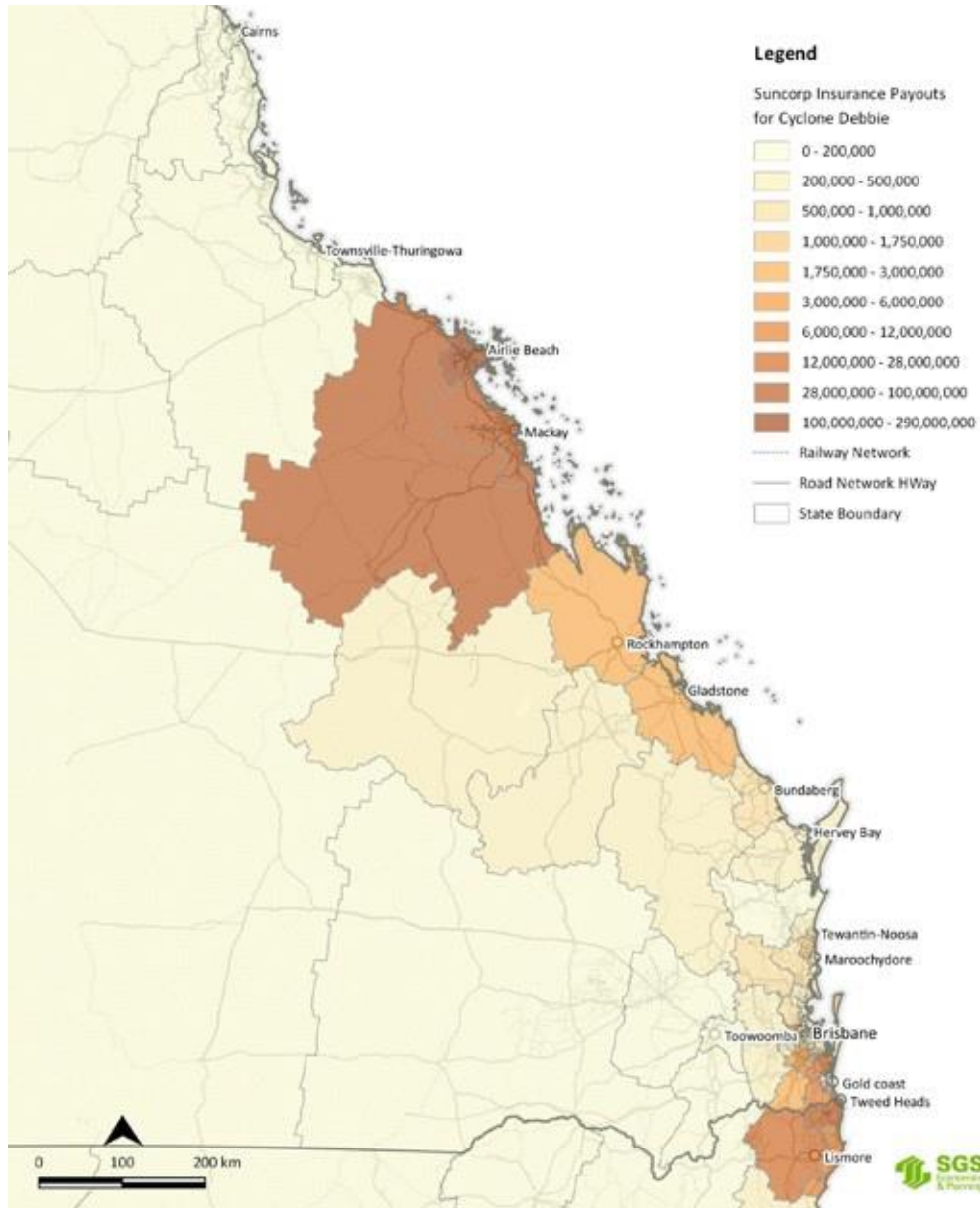


FIGURE 6: TOP 15 SA3 – PERCENTAGE IMPACT OF CYCLONE DEBBIE ON GDP



Source: SGS Economics & Planning

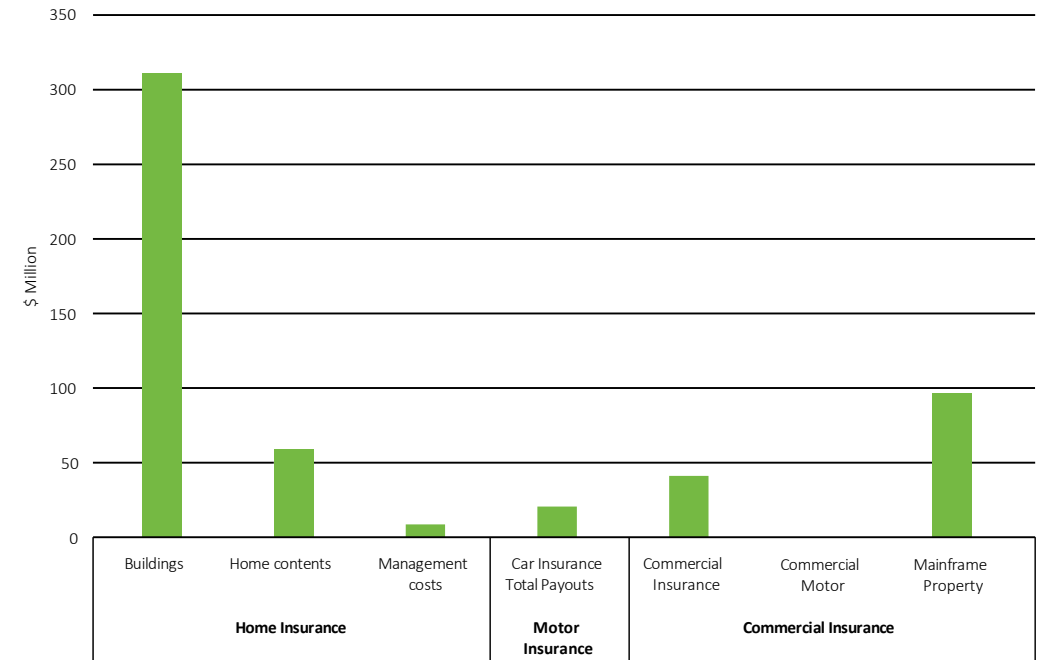
FIGURE 7: SUNCORP CLAIMS & RECOVERY ACTIVITY – CYCLONE DEBBIE



Source: SGS Economics & Planning

Figure 7 shows the spatial distribution of Suncorp’s insurance claims and recovery activity following the disaster. In total, Suncorp paid over \$543 million in insurance claims, with household insurance claims accounting for almost three quarters of the total (\$402.1 million), and commercial claims amounting to \$140.7 million (see Figure 8).

FIGURE 8: SUNCORP CLAIMS & RECOVERY ACTIVITY – CYCLONE DEBBIE

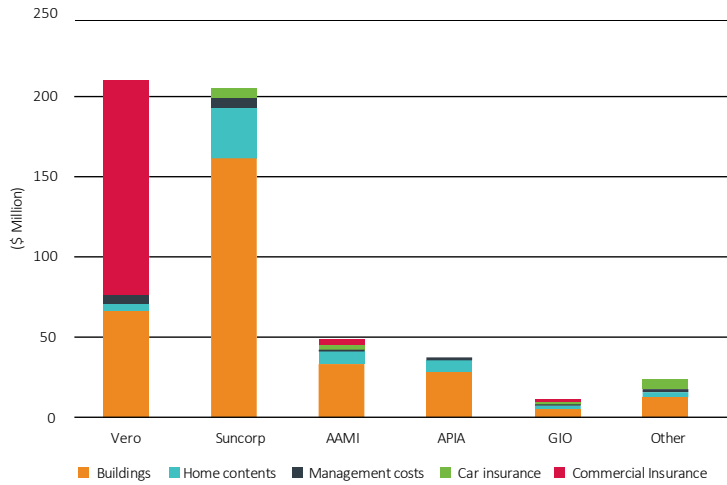


Source: Suncorp

Figure 9 presents the breakdown by the major Suncorp brands. Vero and Suncorp Insurance accounted for over ¾ of total payouts. The majority of Vero’s payouts were commercial related, while Suncorp Insurance policies were more focused on home and content.

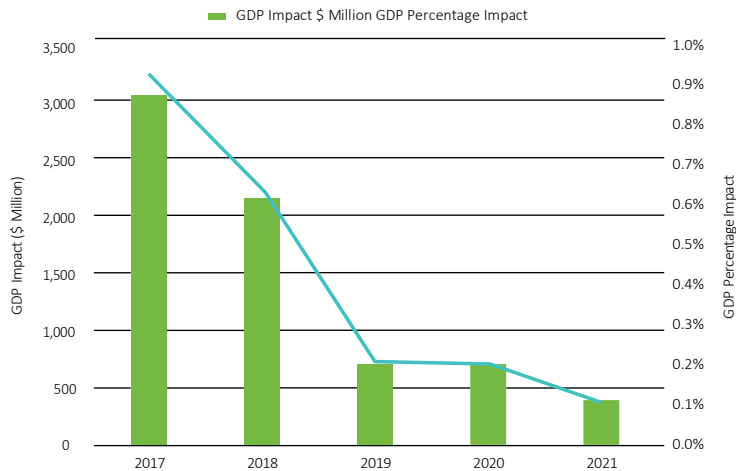
Claims and recovery activity accelerated the repair and reconstruction of damaged buildings and infrastructure, allowing the economy to recover faster to pre-cyclone levels.

FIGURE 9: CLAIMS & RECOVERY ACTIVITY BY BRAND – CYCLONE DEBBIE



Source: Suncorp

FIGURE 10: ECONOMIC BENEFIT OF SUNCORP INSURANCE – CYCLONE DEBBIE



Source: SGS Economics & Planning

During 2017, Suncorp claims and recovery activity boosted the economy (compared to a scenario of no insurance payouts) of the areas impacted by Cyclone Debbie by over \$2.7 billion (0.8 per cent). In the following year, as the stimulus of the payouts continue to flow through local economies, an additional \$1.9 billion will be added to Gross Domestic Product (0.6 per cent). This improved economic performance is expected to continue to at least 2021, with the economy being \$172 million higher because of Suncorp claims and recovery activity. The cumulative economic impact over 5 years is estimated to be \$6.1 billion

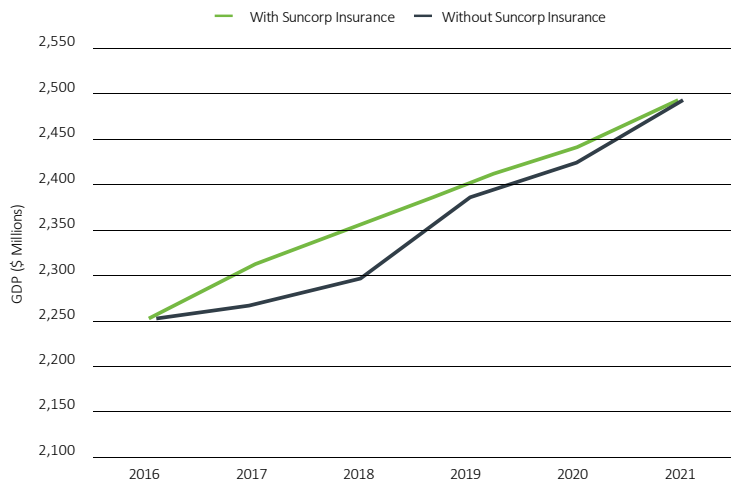
There is a significant range in the spatial distribution of the economic stimulus of insurance payouts compared to the no insurance payout scenario, as the scale of the disasters and the characteristics of the regions vary.

In most locations, the economy would have quickly returned to the long-term trend. Figure 11 presents the with and without Suncorp insurance Gross Domestic Product scenarios for The Gap – Enoggera SA3. The area received around \$4.4 million (86 per cent was for Commercial Insurance) because of Cyclone Debbie. The gap between the two lines represents the economic benefit of Suncorp insurance.

In the absence of insurance, The Gap – Enoggera SA3's Gross Domestic Product would have returned to trend within four years. However, the insurance payouts meant its economy did not suffer several years of sub-trend growth.

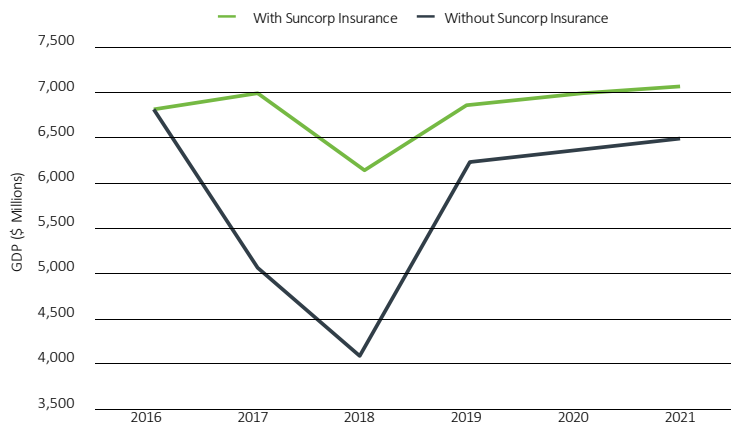


FIGURE 11: THE GAP – ENOGGERA SA3 GDP (\$ MILLION)



Source: SGS Economics & Planning

FIGURE 12: MACKAY SA3 GDP (\$ MILLION)



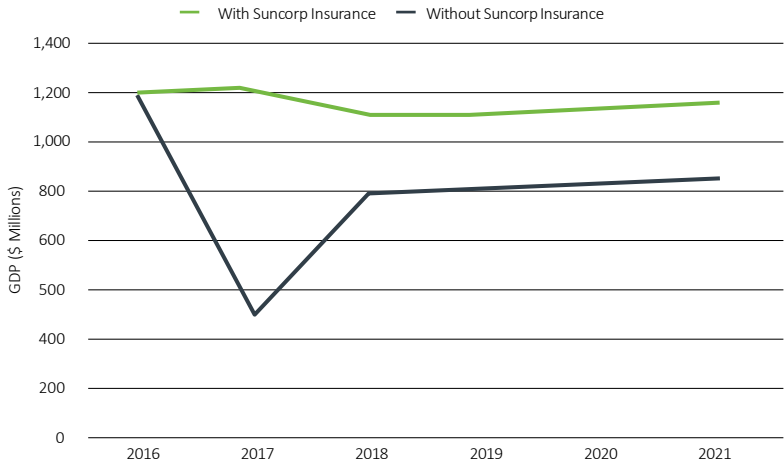
Source: SGS Economics & Planning

Regional communities more severely impacted by Cyclone Debbie would have a different recovery profile. For example, Mackay SA3 (as shown in Figure 12) would have experienced a much greater drop in economic activity without Suncorp insurance. And even by 2020, the economy would not have been fully recovered.

The impact is even more pronounced in locations where key economic assets were destroyed by the disaster. The Whitsunday SA3, which includes the holiday destinations of Hamilton and Daydream Islands, Proserpine and Airlie Beach, was one of the hardest-hit regions. Much of its tourism infrastructure, on which its economy relies, was destroyed. As of October 2018, Suncorp’s claims and recovery activity has injected more than \$285 million, more than half of the total Cyclone Debbie payouts, to residents and businesses in the Whitsunday SA3.



FIGURE 13: WHITSUNDAY SA3 GDP (\$ MILLION)



Source: SGS Economics & Planning

In the absence of Suncorp insurance payouts, the Whitsunday SA3 would have suffered a permanent loss in Gross Domestic Product of 23 per cent.

This is often the case for regional areas which have a narrower economic base (often dominated by capital intensive sectors like resources and agriculture) and more limited employment opportunities compared to larger urban areas. As such, Suncorp insurance plays a more significant role in mitigating adverse outcomes and helping to restore normal economic activities.



3.2 TATHRA BUSHFIRES (MARCH 2018)

OVERVIEW

One in 10 Australians live in towns with populations of less than 10,000 people.²⁰ At the time of the 2016 census there were just over 1,700 small towns, which form part of the regional heart of Australia. Their economic growth and social progress can have implications for Australia's overall competitiveness and standard of living.

The New South Wales south coast town of Tathra is a typical small town with a population of around 1,000. The Tathra bushfires broke out at around midday on Sunday, 18 March 2018. At the same time, many other bushfires were burning across New South Wales, and the fire danger rating on that day was one of the highest on record for the area.²¹

The fires began at the small locality of Reedy Swamp, near Tarraganda, before spreading quickly towards Tathra. At the time of the outbreak, the local temperature was around 37 degrees celsius. The fires were upgraded to emergency status around 3.40pm that afternoon.²²

An inquiry in the fires later determined that the blaze was made up of five separate fires, all of which were extremely fast moving and fierce. The pace and spread of the fires was exacerbated by hot and dry winds.²³ This left little time for residents to react and take precautions, with many forced to shelter on beaches as the fires approached.

The fires burned more than 1,250 hectares. No lives were lost, however 65 homes were destroyed, along with 35 caravans and cabins.²⁴ In addition to the direct impacts, the fires generated power outages and caused many schools to be closed temporarily.

Preliminary investigations suggested that failures in power lines or other electrical infrastructure were the likely cause of the fires.²⁵

The fires have also generated flow-on impacts for residents. Many were displaced and required scarce temporary accommodation, potentially for periods of up to 18 months. Issues also arose from the need to remove asbestos, which was present in many of the dwellings and structures destroyed or effected by the fires.²⁶



²⁰ABS, Reflecting Australia- Stories from the Census, 2016, Small Towns <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0~2016~Main%20Features~Small%20Towns~113>

²¹Department of Justice, 2018, 'Bega Valley Fire Independent Review,' Office of Emergency Management, June 2018, <https://www.emergency.nsw.gov.au/Documents/publications/Bega-Valley-Fire-Independent-Review.PDF>

²²Stuart, 2018, 'Bushfire in Tathra took hold in 90 minutes, say RFS and terrified residents,' ABC News, 19 March 2018, <http://www.abc.net.au/news/2018-03-19/bushfire-in-tathra-timeline/9562916>

²³See Department of Justice, 2018.

²⁴Knaus, 2018, 'Tathra bushfire: class action considered against government-owned utility,' The Guardian, 23 March 2018, <https://www.theguardian.com/australia-news/2018/mar/23/tathra-bushfire-class-action-considered-against-government-owned-utility>

²⁵Knaus, 2018, 'Tathra bushfire: NSW Rural Fire Service says power lines likely cause,' The Guardian, 22 March 2018, <https://www.theguardian.com/australia-news/2018/mar/22/tathra-bushfire-nsw-rural-fire-service-says-power-lines-likely-cause>

²⁶See Knaus, 2018.

The fires were declared a disaster by the Australian Government on 29 March, allowing for federal recovery assistance to be provided.²⁷ The New South Wales Government and Bega Valley Shire Council also provided financial and other assistance. The New South Wales Government initiated a \$10 million clean-up package to assist in the removal of asbestos contaminated material, dangerous debris including destroyed homes and trees, and concrete slabs.²⁸ It also agreed to fund the expansion of the Council's tip to allow for the disposal of hazardous waste safely. Bega Valley Shire has also provided additional support through the Tathra and District Fire Recovery and Resilience Grants program, with \$50,000 available to community groups.²⁹

To reduce the potential impact on tourist numbers - an important component of the local economy - a tourism support package of \$100,000 was also provided by the NSW Government to go towards marketing and publicity programs for the area while it is recovering.³⁰ Many accommodation businesses reported losing bookings in the aftermath of the fires, though the economic impact has been somewhat offset by new bookings and day trippers from nearby areas.³¹

Fortunately, many homes were saved, and no lives were lost in the blaze. The experience of the emergency services, both professional and voluntary, has been reviewed following the Tathra fires. It's now likely that improvements and investment in NSW emergency services' communications, technology and public warning systems will also be a result of the fires.³²



CUSTOMER CASE STUDY: TATHRA BUSHFIRES

Suncorp's specialist home assessors, client managers and major loss building partners operated out of the Bega Recovery centre following the Tathra bushfires in March 2018. GIO customer, Jennifer*, lost her Tathra house which she used as a holiday rental and investment.

The house was assessed as a total loss and a cash settlement for sum insured was arranged. The cash settlement discharged the mortgage on the property and she is now in discussion with neighbours regarding plans for a rebuild or sale to an investor.

For the moment, many Tathra blocks remain bare and former long-term residents have moved from the town which has not recovered to pre-bushfire levels.

**Names have been changed. (Photo credit: Suncorp supplied)*

²⁷Australian Government, 2018, 'Tathra bushfires declared a disaster,' 3 April 2018, https://www.acnc.gov.au/ACNC/Comms/LN/LN_20180403.aspx

²⁸NSW Government, 2018, 'Bushfire clean-up assistance for Tathra residents,' 26 March 2018, <https://www.nsw.gov.au/news-and-events/news/bushfire-clean-up-assistance-for-tathra-residents/>

²⁹Bega Valley Shire Council, 2018, 'Recovery and Resilience Grants,' https://www.begavalley.nsw.gov.au/cp_themes/default/page.asp?p=DOC-DWB-60-54-35

³⁰Destination NSW, 2018, 'Tourism support package announced for Tathra,' 26 March 2018, <https://www.destinationnsw.com.au/news-and-media/media-releases/tourism-support-package-announced-for-tathra>

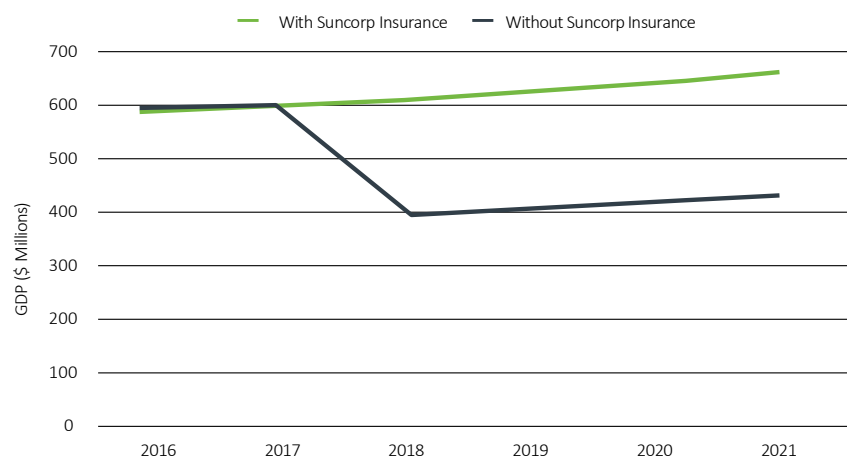
³¹Thomas, 2018, 'Tathra welcomes tourist over busy Easter holiday as town rebounds from devastating bushfire,' ABC News, 2 April 2018, <http://www.abc.net.au/news/2018-04-02/tourists-return-to-tathra-to-help-town-after-bushfire/9610242>

³²Griffiths, 2018, 'Tathra bushfires: Inquiry finds 'palpable animosity' between NSW firefighting agencies,' ABC News, 7 July 2018, <http://www.abc.net.au/news/2018-07-07/tathra-bush-fire-report-finds-communication-problems/9953118>

RESULTS

In 2018, the economic impact of the Tathra bushfire was estimated to be a \$207 million reduction in GDP. This represents a 33.7 per cent decrease in GDP of the area impacted by the bushfire. Figure 14 presents the GDP of the Tathra Statistical Area 2³³ under a business as usual scenario and with the impact of the bushfire.

FIGURE 14: TATHRA SA2 GDP (\$ MILLION)



Source: SGS Economics & Planning

As of August 2018, Suncorp had paid out \$6.9 million in claims related to the Tathra bushfire. Household insurance claims account for 98.3 per cent (\$6.8 million) of total claims.

These insurance payouts for claims and recovery activity have helped to add \$4 million during 2018 to the local economy of Tathra and helped to reduce the economic impact of the bushfires.

³³Given the size of the SA3 in which Tathra is located, the economic analysis was conducted at the smaller SA2 level.



3.3 HOBART FLOODS (MAY 2018)

OVERVIEW

The Hobart floods that occurred on Friday, 11 May 2018, were generated by an intense low-pressure system, which later caused cold snaps and snowfall in NSW. This weather system generated a combination of heavy rain, wind and thunderstorms.³⁴

Hobart's CBD was hit particularly hard by record rainfall, recording over 100 millimetres in a single day. This was the first time this had happened in May and doubled the previous record.³⁵ Nearby areas surrounding the city, such as Mount Wellington, Leslie Vale and Grove received over 200 millimetres.³⁶

The flooding caused roads to turn into rivers and swept away cars in Central Hobart, Sandy Bay, South Hobart, Lenah Valley and Kingston.³⁷ Hundreds of calls were made to emergency services.

The University of Tasmania (UTAS) campus was significantly inundated, forcing the evacuation of students and the campus to be closed for a period.

The floods damaged UTAS' \$5 million high performance computing cluster, that was part of a purpose-built research data centre.³⁸ The University's Law Library was also particularly affected by inundation.³⁹

The floods generated significant power outages, with over 12,000 homes and businesses across Tasmania left without power, with some areas such as Sandy Bay particularly affected. Across the area, 19 schools were closed in the aftermath of the floods. The Royal Hobart Hospital was also damaged by leaks and flooding, and impacted the number of available beds.⁴⁰

The floods were declared a natural disaster on 14 May, triggering the provision of federal funding and grant assistance under the National Disaster Relief and Recovery Arrangements. This includes grants for temporary living expenses, replacement of essential household items, and repair and restoration grants of up to \$9,200.⁴¹

In addition to damage from inundation on homes and businesses in the core of Hobart, the floods caused serious damage to roads and walking trails around Mount Wellington.⁴²

The Insurance Council of Australia (ICA) declared the floods a catastrophe, with more than 1,000 claims lodged in the first 24 hours of the disaster. The ICA later reported that \$45 million worth of insurance claims had been lodged in the month after the floods, including a record number of claims with the Royal Automobile Club of Tasmania (RACT).⁴³

The floods had further impact beyond damage to property, as many businesses were forced to remain closed, leaving their employees without work and income.⁴⁴

RESULTS

In 2018, the economic impact of the Hobart floods was estimated to be a \$908 million reduction in local GDP. This represented a 7.5 per cent decrease in GDP for the areas impacted by the flooding.

As a result of the Hobart floods, Suncorp paid out \$8.9 million in insurance claims and recovery activity (up to August 2018). Household insurance claims account for almost 90 per cent (\$7.9 million), and commercial claims amounted to \$1.4 million.

³⁴AAP, 2018, 'Flash flooding hits Hobart after torrential rain, snow falls in NSW,' The Guardian, 11 May 2018, <https://www.theguardian.com/australia-news/2018/may/11/flash-flooding-hits-hobart-after-torrential-rain>

³⁵ABC News, 2018, 'Hobart weather: Record rain, flash flooding inundate CBD and parts of southern Tasmania,' 11 May 2018, <http://www.abc.net.au/news/2018-05-11/hobart-weather-flash-flooding-record-rainfall/9750032>

³⁶The New Daily, 2018, 'Flood catastrophe: Record rainfall leaves Hobart with \$5m damages bill,' 12 May 2018, <https://thenewdaily.com.au/news/state/tas/2018/05/12/hobart-flood-catastrophe/>

³⁷Maloney & Bailey, 2018, '2018 Hobart floods: a short summary of events,' The Examiner, 11 May 2018, <https://www.examiner.com.au/story/5395787/flood-grinds-hobart-to-a-halt/?cs=87>

³⁸Crozier, 2018, 'University of Tasmania loses \$5m HPC cluster to floods,' 17 May 2018, <https://www.itnews.com.au/news/university-of-tasmania-loses-5m-hpc-cluster-to-floods-491134>

³⁹Whiting, 2018, 'Schools, University of Tasmania reopen after record flood as clean-up continues,' ABC News, 14 May 2018, <http://www.abc.net.au/news/2018-05-13/university-of-tasmania-to-reopen-after-flood-damage/9756404>

⁴⁰See Maloney & Bailey, 2018.

⁴¹Carlyon, 2018, 'Hobart floods declared a natural disaster as Lord Mayor puts damage cost in 'tens of millions,' ABC News, 14 May 2018, <http://www.abc.net.au/news/2018-05-14/hobart-floods-declared-natural-disaster/9759794>

⁴²See Carlyon, 2018.

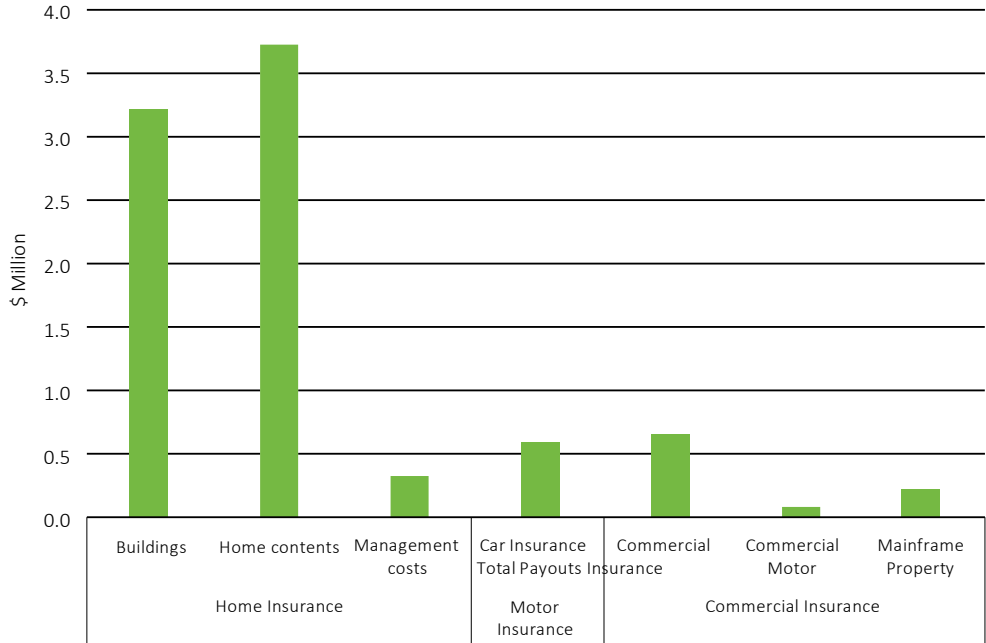
⁴³Blackwood, 2018, 'Hobart flooding declared 'catastrophe' as wild Tasmanian storm eases and tracks north,' ABC News, 11 May 2018, <http://www.abc.net.au/news/2018-05-11/tasmanian-hobart-flood-and-storm-damage-declared-a-catastrophe/9752564>

⁴⁴Shine, 2018, 'Hobart flood victims' lives remain disrupted as they wait for answers, repairs and assistance,' ABC News, 6 June 2018, <http://www.abc.net.au/news/2018-06-06/hobart-flood-clean-up-continues-residents-wait-for-repairs/9837794>; Glumac, 2018, 'Hobart flooding clean-up continues with the damage bill running into millions,' ABC News, 12 May 2018, <http://www.abc.net.au/news/2018-05-12/hobart-flooding-clean-up-worst-storm-in-decades/9753434>

⁴⁵See Shine, 2018.

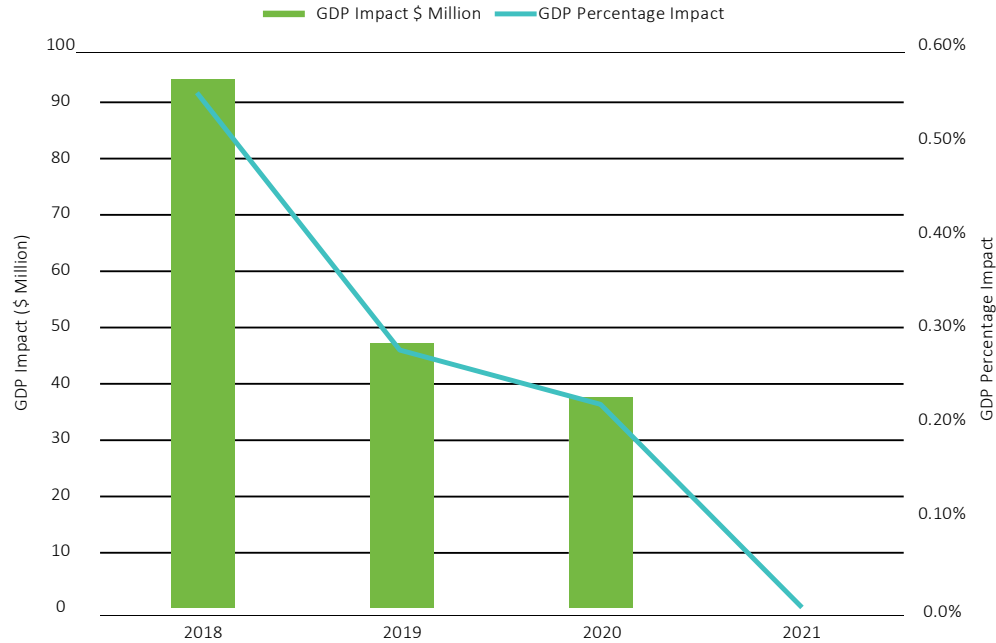
During 2018, the payouts for claims and recovery activity by Suncorp will have boosted the economy (compared to a scenario of no insurance payouts) of Hobart by over \$94 million (0.5 per cent). In the following year, as the stimulus of insurance payouts continues to flow through the local economies an additional \$47 million will be added to GDP (0.3 per cent). The improved economic performance will continue to at least 2020, with the economy being \$36 million higher because of Suncorp payouts.

FIGURE 15: SUNCORP CLAIMS & RECOVERY ACTIVITY – HOBART FLOODS



Source: Suncorp

FIGURE 16: ADDITIONAL ECONOMIC BENEFIT FROM SUNCORP INSURANCE



Source: SGS Economics and Planning

CUSTOMER CASE STUDY: HOBART FLOODS

APIA customer, self-funded retiree and Hobart resident, Harry*, had his basement storage area inundated with water and mud during Hobart's floods on 11 May 2018. Suncorp's repair partners rendered Harry's house safe and began work on repairs immediately. Harry was provided with paid accommodation nearby for the duration of the repair work to his house.

Engaging a local workforce, Suncorp managed the process of mud and debris removal from Harry's basement and itemised the contents that were unable to be saved. With the underfloor areas dried, work then began to restore his flooring and damaged timber. As a retiree, Harry was grateful for the accommodation and peace of mind that repairs were being rendered on his house. Insurance supported Harry to return to his pre-flood situation, as well as the means to look after himself during the repairs process.

**Names have been changed. (Photo credit: Suncorp supplied)*



04

Conclusion

“ Some natural disasters can wreck a local economy and cause a significant, and permanent reduction in the community’s ability to generate income. ”

In the first 12 months following Cyclone Debbie, Tathra's bushfires and Hobart's floods the estimated economic boost from Suncorp's claims and recovery activity following was \$2.8 billion (0.8 per cent of GDP).

Between 2016-2018 there were over 120 natural disasters in Australia.⁴⁵ These disasters impacted urban and regional centres alike and are a traumatic experience for everyone involved. Homes are damaged and destroyed, business premises and important infrastructure are impacted. Normal economic production is disrupted as workers can't get to work, or factories sit idle without raw material.

This report has considered three disasters and the role that insurance had to mitigate the adverse economic impact. We modelled how income from insurance claims and recovery activity helped to bring stability to an economy following the initial shock from the disaster, and the economic stimulus from claims payouts promoted a more rapid return to normal economic activity.

Small towns are the backbone of regional Australia with one in ten Australians living in towns with populations of less than 10,000 people. There are around 1,700 such towns in Australia.

As was the case with the Whitsundays, without insurance, it is possible that a town's economy may never fully recover from a natural disaster, since damage leads in some cases to a permanently impaired productive capacity. These towns often have limited options when disaster strikes and benefit more from the economic stimulus of insurance than urban centres, such as Hobart.

Insurance plays a significant role in mitigating adverse outcomes and helping to restore normal economic activities following disasters. The value of insurance is clear for areas that have limited employment opportunities, or a narrower economic base compared to urban areas that can absorb the economic losses of a disaster more easily.

With large parts of Australia at growing risk from tropical cyclones, bushfires, storms and floods, the importance of insurance is only increasing. The role of insurance is especially vital in regional Australia, where there is a combination of increased risk of natural disasters and communities with a narrower economic base. After disaster strikes, insurance means that the economic impacts are not permanent.



⁴⁵As of October 2018, there were 36 disasters in 2018, 43 disasters in 2017, and 45 disasters in 2016. See <https://www.disasterassist.gov.au/>

Appendix

SMALL AREA GROSS DOMESTIC PRODUCT

This section outlines the method used to estimate Gross Domestic Product for small areas across Australia. These estimates have been used in the two scenarios outlined in Chapter 2 of this report (Economic Modelling).

SGS Economics and Planning has developed estimates of economic activity for each major capital city, along with the regional balance of each state. These statistics provide improved insights into the relative economic performance of each of Australia's major capital cities, Sydney, Melbourne, Brisbane, Adelaide and Perth, and the Northern Territory, Tasmania and the Australian Capital Territory. The statistics can be found [here](#).

This major capital city, along with the regional balance of each state is the broken down into Statistical Area 2. To produce estimate of Gross Domestic Product at the Statistical Area 2 level, estimates are made for each industry. Industries are divided into five categories:

- Primary Production – Agriculture, forestry & fishing and mining. Information on the location of farms and mines is used to distribute regional totals. Head office operations in these industries are accounted for using an average hourly wage rate method;

- Capital Intensive – Manufacturing, electricity, gas, water & waste services, Wholesale trade and transport, postal & warehousing. Detailed 2-Digit industry gross value added per worker is combined with the number of workers is used to distribute regional totals;
- Labour Intensives – All other industries. An average hourly wage rate multiplied by total hours worked in each city is used to distribute regional totals;
- Ownership of Dwellings – Number of houses in the city and average rents are used to distribute State level totals to each city; and
- Taxes less subsidies - The State level total is distributing in line with the total industry gross value added for the SA2.

These is done using a range of data sources including:

- ABS Agricultural Commodities, Australia, 2016-17 (Cat. No. 7121.0);
- 2016 Census of Population and Housing, Place of Work data;
- ABS Labour Force, Australia, Detailed, Quarterly (Cat. No. 6291.0.55.003);
- ABS Australian Industry, 2016-17 (Cat. No. 8155.0); and
- ABS Australian System of National Accounts (Cat. No. 5204.0)



FIGURE 17: OVERVIEW OF MODELLING FRAMEWORK

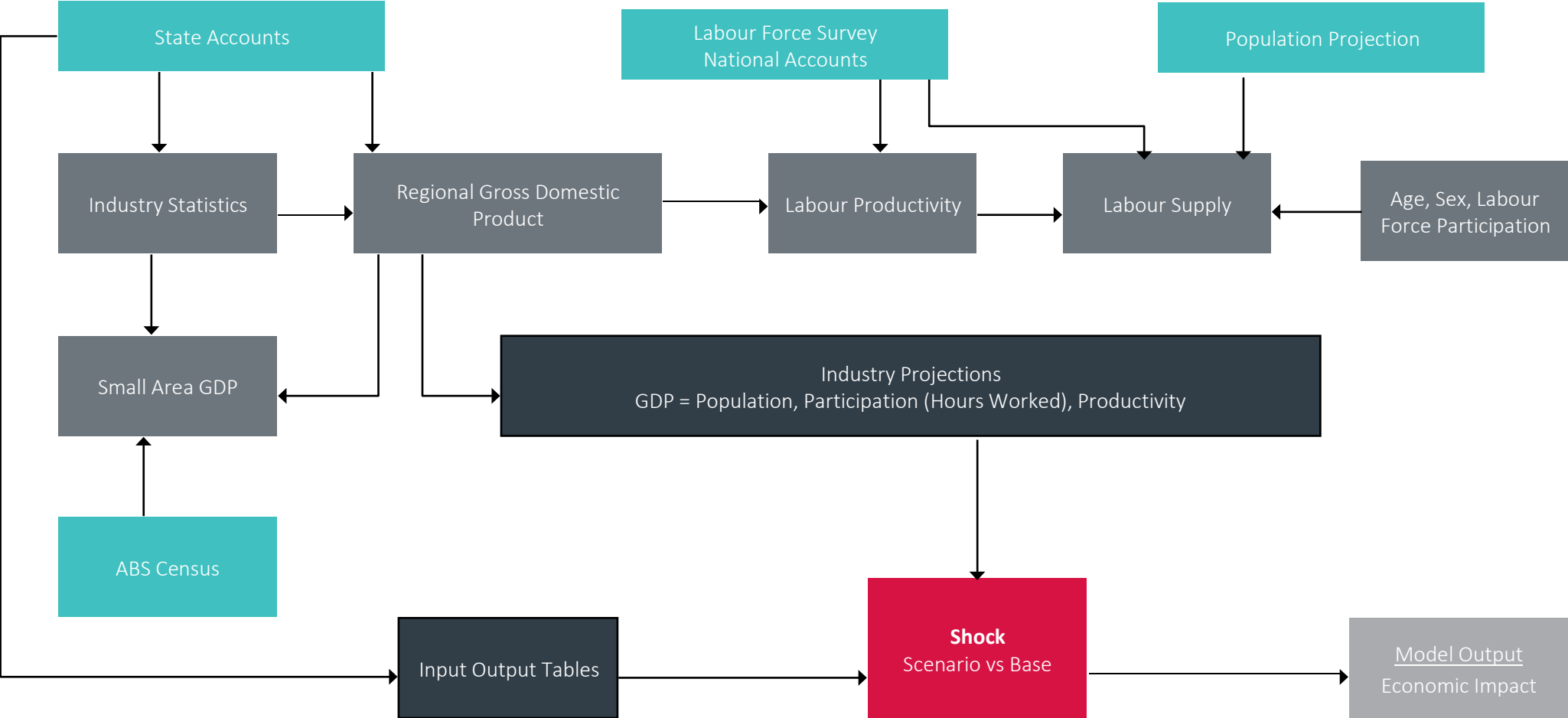
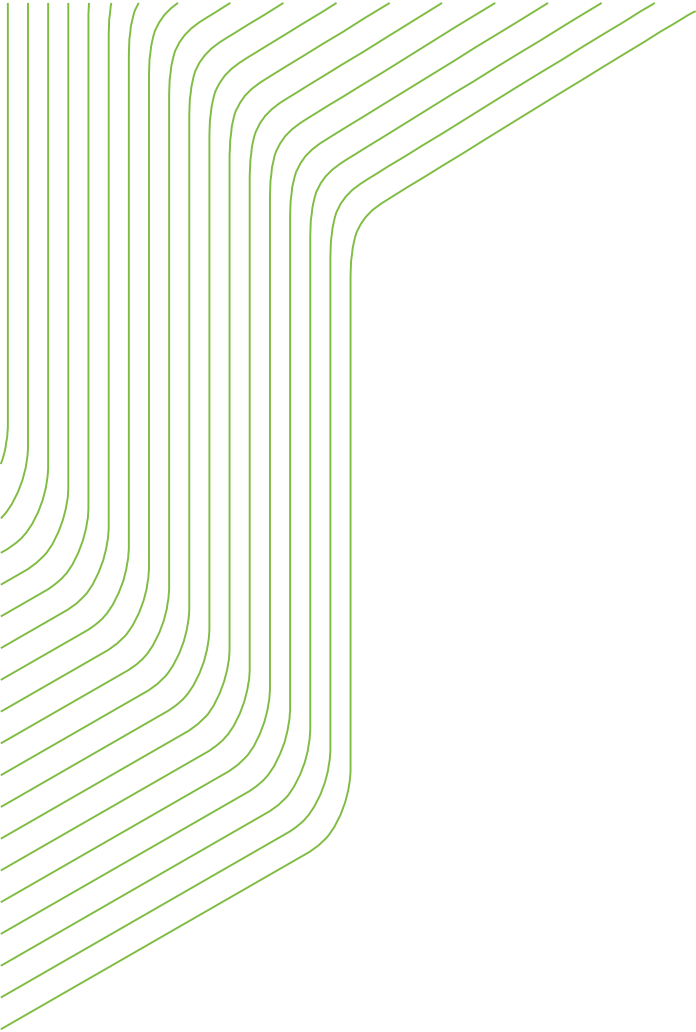


TABLE 4: 2017 CYCLONE DEBBIE IMPACT – TOP 20 SA3

CYCLONE DEBBIE DATA TABLE

STATISTICAL AREA 3	2017 GDP	CYCLONE DEBBIE IMPACT	IMPACT GDP %
Whitsunday	\$1,228	\$788	64.2%
Gold Coast Hinterland	\$629	\$228	36.2%
Mackay	\$6,957	\$1,977	28.4%
Mudgeeraba- Tallebudgera	\$873	\$157	18.0%
Tweed Valley	\$3,611	\$579	16.0%
Bowen Basin- North	\$8,472	\$1,342	15.8%
Richmond Valley- Hinterland	\$3,351	\$375	11.2%
Jimboomba	\$881	\$88	10.0%
Beaudesert	\$573	\$55	9.6%
Richmond Valley- Coastal	\$3,782	\$214	5.7%
Ormeau- Oxenford	\$7,084	\$275	3.9%
Browns Plains	\$2,310	\$86	3.7%
Caboolture Hinterland	\$450	\$11	2.5%
The Gap- Enoggera	\$2,304	\$43	1.8%
Nambour	\$2,430	\$40	1.6%

Source: SGS Economics and Planning



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