

Disasters in Darwin and East Timor: Valuation Lessons for Today

Mike McDermott and Ray Buckley, Australia

ABSTRACT

This paper will review two disasters, with a primary focus on Darwin after Cyclone Tracey in 1974, and a secondary focus on Timor Leste from 1999.

There are several lessons to be drawn from the comparison, but the main two are:

1. The importance of detailed record-keeping and the backing up of those records elsewhere, and
2. The need for fully trained and experienced valuers to interpret the losses in value (not just the cost of repairs) of damaged buildings where there was no market evidence.

Valuation featured prominently after Cyclone Tracey, with a team of 15-16 valuers, using three cars, visiting every property in Darwin and comparing its current state with its state prior to the cyclone as provided by those records. Their researches were then used to assess restitution amounts. This was not possible in the case of Timor Leste.

The paper will further reflect upon what those disasters can tell us about the remedies may now, or soon, be available, that were unavailable at that time, and how they could assist in the enormous challenges that may arise if disasters hit in any of the rapidly burgeoning cities of the developing world.

Disasters in Darwin and East Timor: Valuation Lessons for Today

Mike McDermott and Ray Buckley, Australia

Darwin: Cyclone Tracy

Let's start with Darwin, and Cyclone Tracey. At the time, its population was around 47,000. It had been hit by major cyclones before, in January 1897 and March 1937. It had also suffered a lot of bombing raids by the Japanese in World War II. The fleet which attacked the Americans at Pearl Harbor went on to launch the largest single attack ever mounted by a foreign power on Australia on 19 February 1942.

So Darwin had been, literally, in the wars. However, while they killed more people the Japanese were unable to wreak the devastation to property that Tracy did:

"In the first week of January 1975 only about 500 houses were habitable out of a total of some 12,000" (Australia 1975).

The city had expanded rapidly after the war. Albeit remote (it is closer to Manila than it is to any other Australian capital city except Adelaide), it grew into a dynamic small city with a generally young population. As the majority of employment was provided by Public Service jobs, it also had a comparatively high level of education for the time. However, they were lulled into a false sense of security because Cyclone Selma impacted Darwin on 9th December even though it did not reach Darwin – 12 inches of rain fell in 12 hours – it didn't seem bad enough a prospect to spoil all the planned Christmas Eve parties. Consequently, many were at less than their most cogent when Tracy struck.

Journalist Bill Bunbury interviewed the residents of Darwin some time later and recorded the experiences of the survivors of the cyclone in his book *Cyclone Tracy, Picking up the Pieces*. Resident Dawn Lawrie, a 1971 independent candidate for the electorate of Nightcliff, told him:

"We'd had a cyclone warning only 10 days before Tracy [that another cyclone] was coming, it was coming, and it never came. So when we started hearing about Tracy we were all a little blasé. (Bunbury 1999, p. 20)

Another resident, Barbara Langkrens, said:

"And you started to almost think that it would never happen to Darwin even though we had cyclone warnings on the radio all the time ... most of the people who had lived here for quite some time didn't really believe the warnings. (Ibid, p. 21).

Several valuers had their own stories to tell. For example, when his house disintegrated one valuer and his wife jumped into their wardrobe and found themselves flying through the night. They landed with a thud, but not as hard as they thought it would be. When they emerged from their wardrobe the next day, they found they had landed on their mattress.

Disasters in Darwin and East Timor: valuation Lessons for Today. (8376)

Michael McDermott and Ray Buckley (Australia)

FIG Working Week 2016

Recovery from Disaster

Christchurch, New Zealand, May 2–6, 2016

On Christmas Day the Eye passed over every major residential area traversing the Northern Suburbs, the inner areas of Darwin, then the Industrial areas and Rural living areas. Tracy left more than 41,000 out of the 47,000 inhabitants of the city homeless prior to landfall and required the evacuation of over 30,000 people. Between 26 to 31 December, a total of 35,362 people were evacuated from Darwin. By 31 December, only 10,638 people (mostly men who were required to help clean up the city) remained in Darwin. Tracy killed 71 people, caused A\$837 million in damage (1974 dollars), or approximately A\$4.45 billion (2016 dollars). Once the dust was settled, it was found to have destroyed more than 70 percent of Darwin's buildings, including 80 percent of houses.

At one stage, the government was wondering whether to rebuild Darwin at all, or, if they did rebuild, to do so further inland,¹ but before the year was over the Darwin Reconstruction Commission had been formed.

The Role of the Valuer-General's Office

Before Tracey, the role of the Valuer General prior was to provide Valuation Services to the Commonwealth, value government houses for purchase, perform rental valuations, and provide general property advice as required to the Commonwealth (The Australian Government).

There were many new demands on the office afterwards. For example, Section 54 of the Darwin Reconstruction Act of 1975 stated:

54. (1) For the purposes of the determination of compensation under the Lands Acquisition Act 1955-1973 in respect of the acquisition, by compulsory process, of land in the Darwin Area during the prescribed period, the value of the land at the date of acquisition shall be deemed to be not less than the amount that would have been the value of the land on 23 December 1974, if the improvements on the land on the last- mentioned date had been the same as, and in the same condition as, the improvements on the land at the date of acquisition.

(2) Subject to sub-section (1), the regulations may provide for modifying the operation of the Lands Acquisition Act 1955-1973 in relation to the acquisition of land in the Darwin Area during the prescribed period.²

So the valuers had to provide similar services but now specifically to the situation including valuing all privately owned property (to assist in the assessment of promised Government rebates for uninsured losses). As well as section's 54 requirement for valuations to be as at 24th December, many had to be as inspected post cyclone to assess the difference.

The Process of these Valuations

¹ <http://guides.naa.gov.au/records-about-northern-territory/part1/chapter6/6.6.aspx>

² http://www5.austlii.edu.au/au/legis/cth/num_act/dra1975264/

Gerald Doody, a senior V-G valuer of the time, recently shared his memories of the V-G's processes at the time. An inspection team of 15-16 valuers was sent from Adelaide to Darwin in February 1975 to inspect all privately owned residential properties. Where possible measurements were made, photos taken and current condition generally noted and described.

Accommodation was only available on the *Patris*, a ship brought to Darwin to provide emergency assistance and provisions. Limited vehicles were available which required valuers to be dropped off with inspections carried out on foot in most suburbs.

Actions taken after Cyclone Tracy by the Reconstruction Commission

Armed forces were inserted into Darwin area for instant relief and assistance with the clean-up. There was a great deal of clearing of badly damaged and un-occupied houses.

A survey of all residential property rated each property as follows:

100% damaged,

75% damaged,

50% damaged,

25% damaged,

“Write off”³

Pre-Cyclone Disaster Planning

Despite previous extreme Cyclones having impacted Darwin, no provision had been made for significant protection of staff or records. There were no computers and all records were in paper form, with no backup copies available. Even projecting forward to computer and electronic records such was the extent of the Cyclone damage (e.g. loss of power and other infrastructure damage) that records remote to Darwin may have been required.

Cyclone Tracy: Lessons learned

Without doubt our most valuable source were the historical property records recovered from the office two weeks after Cyclone Tracy. The loss and unavailability of the local valuers suggests that remote resourcing is also needed to be considered in any disaster planning. It is clear that both hard and soft copies⁴ of all tenure, valuation, survey and other property-related information should be kept for data recovery in case of disasters.

³ Note that this work was done by untrained staff.

⁴ While major electromagnetic pulses (EMPs) are extremely rare in nature, they do occur, and EMPs are now weaponised and could be one of the first weapons used in future major conflicts (<http://www.digitaltrends.com/cool-tech/us-air-force-confirms-boeings-electromagnetic-pulse-weapon/>).

Prior to Cyclone Tracy there was a change to individual property files incorporating land details, building plans, detailed descriptions, photographs and records of previous work carried out by the VG office. These records were packed up on 9th January 1975 and removed to Adelaide for the VG office to carry out the required work.⁵ They became an invaluable asset for later tasks. The remote location of Darwin to other City Centres around Australia combined with the damage to existing facilities resulted in a complete break-down of communications, and the requirements of valuers and other property professionals need to be enfolded into disaster response policies and plans. Restitution and compensation is not a necessarily a matter that can be dealt with later than the obvious fundamentals for survival.

Due to the total level of disaster and evacuation, existing staff were not available for any immediate duties with some residual loss of availability due to emotional stress. In this regard, on a personal note Mike McDermott's sister's family was shattered in the cyclone, including their 8 year old daughter dying on Christmas morning. The family never completely recovered. It must be remembered that similar long-term effects, including but not limited to PTSD in individuals,⁶ will occur in all societies effected by disasters, and can have long term consequences in many domains and scales.

Timor Leste

A long and sad history of occupation and acts of riot, war, and civil disturbance have effectively resulted in Timor Leste having almost no formal property market infrastructure and a host of land disputes (Fitzpatrick 2002). As Almeida (2015) points out, the land valuation profession is practically non-existent in Timor Leste,⁷ and "the country lacks the legal mechanisms to ensure that the land rights and life conditions of the people affected by these projects are not diminished" including within the context of compensation for the acquisitions of lands required to effect Timor-Leste's pressing infrastructure requirements.

There was a valuer brought to Timor-Leste to attempt to address the several problems resulting from this series of disasters. Now Timor-Leste's independent:

"There are competing claims over land, with original owners arguing they never sold their land and any later purchases are invalid. The few land records that survived the post-referendum devastation in 1999 tend to be overlapping or contestable Portuguese and Indonesian titles. It's a daunting task ahead of him but John Leigh, a former Melbourne land valuer and property law lecturer, is helping to rebuild the country's entire land titles system ... John Leigh admits he was unprepared for the extent of the devastation when he arrived in

⁵ The NT office was always partly managed from Adelaide.

⁶ Which addresses psychological damage but not the myriad of social, health, environmental and other effects. For example, asbestos and other detritus is widespread on some of Darwin's beaches and other areas which were used to dispose of the ruined buildings (for example, see http://parksandwildlife.nt.gov.au/data/assets/pdf_file/0010/357355/CCR-draft-Mgt-Plan_public-comment.pdf).

⁷ There was a valuer brought to Timor-Leste

Dili in December 2002. ‘We found every piece of information gone. There were no civic records left at all – no land titles, no town planning, no maps showing the layout of water and power supplies ... all destroyed.’⁸,

Sadly, John Leigh has since died, and despite the best efforts of many highly motivated and skilled persons, both local and international, matters have little improved since. When Mike McDermott went there on a consultancy several years ago, the rental values John Leigh had set many years before then were still being used, including in completely inappropriate contexts. But what else can be done? This is a question that Mike has addressed in many consultancies in many countries since. In the context of Cyclone Tracy, Gerald Doody and others have stressed the fundamental need for retention of base data, but if it is destroyed, or was never there in the first place, what is to be done?

This is the catch-22 of valuation in the developing world: To develop, the developing world needs properly functioning property markets. To have properly functioning property markets, you need to develop (McDermott 2012). Mike has looked at addressing matters at the immediate time scale by importing more general attempts at resolving wicked problems (McDermott 2014; Brown, Harris and Russell 2010). Rod Nixon has examined the larger-scale and longer term issues there, generalising lessons from there to the “new subsistence state” (Nixon 2013).

Consequently, it is the catch-22 of monetary valuations in the context of disaster relief: to provide transparent and accountable valuations, the developing world needs properly functioning property markets. To have properly functioning property markets, you need to develop.

These are matters under consideration in this conference. Your contributions are most welcome.

References

Almeida, B. 2015. With or Without International Institutions? Land Acquisition for Infrastructure Projects in the Fragile Legal Framework of Timor-Leste. Linking Land Tenure and Use for Shared Prosperity. World Bank, Washington, D.C. 23-27 March, 2015.

Australia. Cities. Commission. 1975. Planning options for future Darwin: first report, 28 January 1975 / Cities Commission. Australian Govt. Publishing Service, Canberra. Available at <http://nla.gov.au/nla.cat-vn1229273>.

Brown, Harris and Russell 2010. *Tackling Wicked Problems through the Transdisciplinary Imagination*. London, Earthscan through Routledge.

Bunbury, B. 1994. Cyclone Tracy: Picking up the Pieces. Fremantle Arts Centre Press, Fremantle, Western Australia.

Coleman, Malcolm. R. 1976. “Forum – National Disasters: Darwin Cyclone.” *The Valuer*, October 1976.

⁸ http://dfat.gov.au/about-us/publications/Documents/focus_spring03_13.pdf

DFAT. 2003. Land Rights and Hot Property. Focus, Spring 2003 Issue. Department of Foreign Affairs and Trade (DFAT). Canberra, A.C.T. Australia Available at: http://dfat.gov.au/about-us/publications/Documents/focus_spring03_13.pdf

Fitzpatrick, D. 2002. *Land Claims in East Timor*. Asia Pacific Press. The Australian National University in the Crawford School of Economics and Government.

Leigh, John and Rod Nixon. 2005. 2005 Dili Rental and Valuation Report. Joint AusAid and USAID report dated March 2005 produced for the RDTL Ministry of Justice.

McDermott, M.D. 2012 The Catch-22 of Valuations in the Developing World. 26th Pan Pacific Congress of Real Estate Appraisers, Valuers and Counsellors, Melbourne, Australia 1-4 October.

McDermott, M.D. and Nosedá, A. 2014. Resolving the Catch-22 of Valuations in the Developing World. 7th International Real Estate Research Symposium (IRERS), Putrajaya, Selangor, Malaysia, 29th to 30th April 2014.

Nixon, R. 2013. Justice and Governance in East Timor: Indigenous Approaches and the 'New Subsistence State'. Taylor and Francis, London.

Disasters in Darwin and East Timor: valuation Lessons for Today. (8376)
Michael McDermott and Ray Buckley (Australia)

FIG Working Week 2016
Recovery from Disaster
Christchurch, New Zealand, May 2–6, 2016