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Motor transport for the homelands

Planes, Roads, Automobiles: The Realities of Life on NE Arnhem Homelands

Part — Roads

Roads: The Central Arnhem Highway

The road that falls between the cracks

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This is a draft paper that will be continually updated with new information as it comes to hand.

Summary. The Central Arnhem Highway, officially the Central Arnhem Road, runs about 645 kilometres from the Stuart Highway south of Katherine to Nhulunbuy, and more than 85 per cent of it is unsealed. Unlike the western road into Arnhem Land through Cahills Crossing, which closes for the whole wet season, it is the road that is meant to work all year: passable in principle, but very hard going in the wet, with restrictions, washouts and bogging, and closures at the extreme. This Roads paper, a companion to Planes, Roads, Automobiles, traces how the road was built and funded, who maintains it and its branch roads to communities and homelands (including Marthakal and Laynhapuy), and why it falls between the Commonwealth, the Northern Territory, regional councils and homeland organisations. It sets the A\$355 million upgrade against what has been delivered, about 25 kilometres of new seal in seven years against a 2019 promise to seal about half the road, and asks what this means for access to Mata Mata and the homelands. Drawing on the companion paper Where Gove's Money Went, it sets the road against what the Gove mine has produced since 1970, and finds no royalty or profit stream from the mine dedicated to the road or to the homeland roads.

This paper is a companion to Planes, Roads, Automobiles: The Realities of Life on NE Arnhem Homelands (Botsman 2026), the main paper of the set. It links to the Mata Mata Transport feature on isx.org.au (<https://www.isx.org.au/features/planes-roads-automobiles-bush-taxis>).

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1. The road

The Central Arnhem Road, also called the Central Arnhem Highway and locally “the Track”, is a designated Northern Territory state route (C24). It leaves the Stuart Highway about 50 kilometres south of Katherine and runs north-east through Barunga, Beswick (Wugularr) and Bulman to the Gove Peninsula, where it becomes Dhupuma Road near Gove Airport. It crosses Aboriginal land under the Aboriginal Land Rights (Northern Territory) Act 1976, and non-Aboriginal travellers need a free Northern Land Council permit.¹ The Department of Logistics and Infrastructure (DLI) gives its length as 645 kilometres; other sources give 663, 675 and, from Katherine to Nhulunbuy, 710 kilometres.²



Figure 1. The Central Arnhem Road near Mainoru, with a grass fire on the right shoulder, 4 September 2017. Photograph: Ian Cochrane. Flickr, https://www.flickr.com/photos/iancochrane_2011/36941181752/. Licensed CC BY 2.0.

The road connects more than 12,000 residents and is a tourism, freight, mining and pastoral route. Nhulunbuy is the only large regional centre in the Territory not connected to the national highway network by a sealed road.³ Distances (chainage) run from the Stuart Highway: the Mainoru station turnoff is at about 180 kilometres and the Mainoru store at 197; Bulman at about 251 to 256; the Ramingining turnoff at 353; the Goyder River crossing at about 378; and the Gapuwiyak turnoff at 482.¹ The track to Gi'kal and Mata Mata leaves the highway about 61 kilometres from Nhulunbuy; from there the homeland road itself runs about a further 70 kilometres (section 9).^{4 5}



Figure 2. Permit sign on the Central Arnhem Road: “Aboriginal land permit required from 223 km onwards” and electronic board “Road open to Gove”, near Mainoru, 4 September 2017. Photograph: Ian Cochrane. Flickr, https://www.flickr.com/photos/iancochrane_2011/36276155834/. Licensed CC BY 2.0.

Only the western end is sealed. A single-lane seal runs about 110 to 118 kilometres from the Stuart Highway to Beswick, and short sealed sections have been added since 2021 (section 7). More than 85 per cent of the road is unsealed.⁶

2. How it was built

Before vehicles, the routes across this country were Yolŋu and neighbouring peoples’ foot trails. David Lindsay’s 1883 expedition followed the Goyder River, and by the early twentieth century Mainoru cattle station and the Roper River Mission were supply points. The Methodist missions at Milingimbi (1923), Yirrkala (1935) and Galiwin’ku (1942) were reached by sea and, later, by air.⁷

The road began as a mining survey track. Neville White records that “shortly before Lake Evella was set up [1969], a mining survey party constructed a rough road connecting Katherine ... to the Gove Peninsula ... This track has become the Central Arnhem Highway”, which runs about five kilometres north of the original road through Donydji. A mining survey team also built the Donydji airstrip in 1968.⁷ Under the Commonwealth–Nabalco agreement of February 1968 the company funded the Gove township, except the school and hospital, and the port; the mine and refinery opened in 1972 and were supplied by sea. This research found no evidence that Nabalco built or paid for the overland road, nor of a wartime road to Gove; the RAAF built Gove airfield in 1943.⁸ On 11 October 1991 the Minister for Lands and Housing, Maxwell Ortmann, approved naming the road Central Arnhem Road under section 11 of the Place Names Act; the notice was published in the Northern Territory Government Gazette on 23 October 1991 (No. G42). Before that naming the route was commonly known as Mainoru Road.⁹

After self-government in 1978 the Territory’s Department of Transport and Works took over the “Bulman Track”. Grader operator Dennis “Snowy” Noakes, who went to Nhulunbuy in 1986, is credited with building it into a usable road, “giving Nhulunbuy residents an option to drive in/out”. The Maningrida–Bulman track had been blazed in the 1960s along “ancient foot trails”; the first vehicle took four days.¹⁰

Engineered crossings came late. Three single-lane bridges and 14.4 kilometres of realignment at the Goyder River were built in 2012–14, a 2014 federal package funded the Donydji, Goyder and Mainoru crossings, and the Rocky Bottom Creek bridge followed in 2015.¹¹ Sealing beyond Beswick began only in 2020 (section 7).

3. Condition: passable in principle, very hard going in the wet

Official and tourism sources describe the road as open all year. The East Arnhem itinerary says it “is accessible year round” but “can be temporarily closed due to flooding between October and May”. The regional development body puts closures at “about nine days of closure per year in the peak of the wet season” and says the Territory spends “on average over \$2 million per annum” maintaining it.¹² In that sense it is passable in principle.

In practice the wet makes it very hard going. The road is “prone to seasonal (December to April) flooding, resulting in frequent road restrictions for heavy vehicles and infrequent closures”; four-wheel drive is recommended, trailers should be heavy duty, and mud, river crossings, loose gravel, corrugations and bulldust change with the weather. A Territory construction snapshot refers to “frequent restrictions or closures throughout the wet season”.¹³ The Gapuwiyak health workforce profile allows 8 to 10 hours from Katherine “depending on road/weather conditions” and warns that the highway “can be cut off for prolonged periods during the wet season”. Near Bulman the road can become impassable at the Mainoru River and Flying Fox Creek, and after Tropical Cyclone Paul in 2010, 443 millimetres of rain in 24 hours closed every road out of Bulman, and its airport.¹⁴ The Territory’s budget papers concede that “transport for travellers and freight to East Arnhem is mainly by air or sea”.¹⁵

No official series records how many days the road is closed each year, or the floodway depths at which it is closed. The Territory’s Annual Traffic Report for 2023 does list fifteen restriction or caution records on the Central Arnhem Road that year — weight and GVM limits, high-clearance four-wheel-drive only, and road works or damage — none of them coded as a full road closure in that table.¹⁶ What the wider record shows is a range: corrugations and bulldust in the dry; heavy-vehicle restrictions, washouts, bogging and slow travel in the wet; and closures at the extreme.

The extreme is documented. In late April 2025 a tropical low flooded roads and airstrips across north-east Arnhem Land, leaving about 500 people on Laynhapuy homelands without access to fuel, food and healthcare; many of its 27 homelands had received no food delivery since mid-April, and the corporation chartered aircraft to deliver supplies. Its chair, Yananymul Mununggurr, said: “We need the roads to be looked after better because sea and air is not always going to be the solution.” In March 2026, after floods across the Territory, 76 roads were closed and 26 impassable, and the minister said the priority was the Stuart, Barkly and Victoria highways before road connections to remote communities. Flood repairs on the Central Arnhem Road followed, including a \$2.07 million re-sheet between 576 and 593 kilometres funded through disaster recovery arrangements.¹⁷ The 2026-27 Territory budget added a \$30.5 million Roads Repair Package that names the Central Arnhem Highway.¹⁵

Cyclones leave lasting damage on these roads. The author’s earlier Working Papers essay *When the World Turns Upside Down* recorded what Tropical Cyclones Lam and Nathan did to the remote Aboriginal homelands in 2015.¹⁸ A prison road-works team cleared about fifteen kilometres of fallen trees; the author and Gary Baker, then the Marthakal officer posted at Nyinyikay, worked for several weeks to get the trees

off the road.¹⁹ The tracks themselves get overgrown and go unmaintained. The classic case is a big tree coming down: a diversion is made into the bush around it.²⁰ The same essay records Yolŋu drivers doing what looks impossible. On the second night on the Mata Mata track, Ian and James Gurruwiwi joined the author's party, having "incredibly got their vehicles through the morass by cutting across country"; the author wrote that "cars are invariably damaged, sometimes badly, but to even go ten metres in cyclone ravaged bush, let alone 50 kilometres is a feat that is beyond the most intrepid bush driver." The author recalls that they made it overland to the Central Arnhem Highway and that the car was wrecked; the essay itself does not say where the drive ended or that a vehicle was written off.²¹ Years later, dead trees still stand along stretches of the Central Arnhem Road. A photograph taken by the author, looking over the white bonnet of his vehicle, shows skeletal trunks beside the highway: cyclone damage to the bush still visible after some years.²²



Figure 3. Looking over a white vehicle bonnet down the Central Arnhem Road: dead trees still standing beside the highway, cyclone damage to the bush still visible after some years. Photograph: Peter Botsman.

The way Yolŋu keep old cars going on these roads has its own popular record. The author describes a much-loved bush car series, a hit on YouTube, that shows how Yolŋu adapt old cars and do completely improbable things: it is humorous, but not really, because the humour is real and the conditions are not a joke.²³ The closest match found is Black As, a web series made around Ramingining with three young Yolŋu men, Jerome Lilypiyana, Chico Wanybarrnga and Dino Wanybarrnga, and their adopted brother Joseph Smith, and directed by David Batty, who made Bush Mechanics with Warlpiri men at Yuendumu. Its first season begins with their hunting tracks blocked by fallen trees after Cyclone Lam; the first episode is titled "Trashed 4WD rescued after cyclone". The series is on the Outback Boys channel on YouTube, which had about 335,000 subscribers in October 2026.²⁴

The homelands and the roads to them are in the songs as well. The author notes that homelands are named in Yothu Yindi songs.²⁵ "Tears for Law (Garrathiya Run)", written by Mandawuy Yunupingu and Daniel Watson, opens on a dusty road with the "four wheel drive locked all the way", heading for Dhanayangala and passing families on the way; a few miles down the track is the Garrathiya run, in Gunumarra country. Garrathiya is the Gumatj cattle station on the Gumatj estate.²⁶

The author's own observations, which are first-hand accounts rather than survey data, point the same way. Safety and accidents on the Central Arnhem Highway are terrible. On 27 September 2026 the author counted 30 wrecks along the road, against a personal record of 150; diesel was over \$3.50 a litre.²⁷ In October 2022, on the published account in Grand Final Night at Conway Station, an HJ60 lost seven tyres

between Nhulunbuy and Mainoru on this road.²⁸ In the week before 9 October 2026 there was another accident near Gapuwiyak.²⁹ In 2025, on a single stretch of the highway near Gapuwiyak, about 20 or more vehicles were bogged — the author’s memory of a scene, not an official count; a published photograph matching that memory was not found for this paper.³⁰

The road is sometimes said to be Australia’s worst. This research found no survey, motoring-body ranking or official statement that says so. The nearest documented statements are a traveller’s description of it as a “goat track” with “dozens of wrecked vehicles, millions of corrugations”, and the Territory’s statement that Nhulunbuy alone among its large centres lacks a sealed road link; in 2010 a four-wheel-drive magazine ranked the drive fifth of twenty “must drive” tracks. The AANT’s 2026 Risky Roads survey was led by the Stuart Highway and Darwin roads. Similar labels attach to other remote roads: ABC Radio National asked whether the Tanami Road was “the worst highway in Australia”, travellers have called the Gibb River Road “some of the worst roads in the country”, and a 2025 breakdown-remoteness index ranked the Gunbarrel Highway and the Tanami Road first and second, with the Sandover and Carpentaria highways also in its top ten.³¹

4. The road that is meant to work

The other road into Arnhem Land runs from Darwin through Jabiru and across the East Alligator River at Cahills Crossing to Gunbalanya, then on unsealed roads toward Maningrida and Ramingining. Cahills Crossing is a narrow causeway about 50 kilometres from the river mouth and strongly tidal; in the dry it is crossed around low tide, and in the wet it “becomes impassable and will close”, usually from November or December until mid-April or early May. West Arnhem Regional Council states that in the wet “the only access to [Gunbalanya] is by air”, that Maningrida is reached only by air or barge, and that road freight to Gunbalanya runs in the dry season only. Both roads to Ramingining are “dry season, four-wheel drive use only”.³² No one expects the western road to work in the wet.

The Central Arnhem Highway is the road that is meant to. It is a designated state route; the Territory’s stated long-term objective is “a two-lane sealed connection for the entire road”; and the Goyder River bridges were built to cut the average wet-season closure there from about four months to one or two weeks.¹¹ This research found no formal “all-weather” service standard. On the Territory’s published highway list the road is an arterial state route (C24).³³ The gap between the intended standard and what happens is the subject of this paper. The official average is nine closure days a year, but heavy-vehicle restrictions, washouts and failed minor crossings extend the loss of access well beyond that, and when the highway is open the branch roads may not be (section 9).

The consequences fall on the things a road is for. When the road fails, freight to East Arnhem moves by air or sea at higher cost (section 8); Baniyala relies on air food drops when it is cut off from the barge at Gapuwiyak; clinic access, fuel and food deliveries stop, as in 2025; and families pay for charters to reach funerals and ceremony.³⁴ Nhulunbuy’s supply chain matters more as the Gove mine winds down: production is to cease in 2029, and the region’s only supermarket is to close in 2027.³⁵

5. Who builds, maintains and pays

The highway is a Territory road. DLI plans and funds it and contracts out the work. Capital works since 2020 have gone to Black Cat Civil, Earthbuilt and Allan King & Sons (section 7). Routine maintenance from

Bulman to Nhulunbuy, together with the Ramingining Link Road and surrounding local roads, is a 36-month period contract awarded on 1 August 2025 to Woodhill & Sons Pty Ltd, trading as Northern Remote Concrete, at estimated unit rates of \$6,947,900, about \$2.3 million a year (worked out here). The company has yards at Katherine, Nhulunbuy and Ramingining, and in 2026 also won re-sheeting contracts between 426 and 434 kilometres (\$1,766,452) and between 576 and 593 kilometres. The tender records for the main contracts mark the contractors “Aboriginal Enterprise: No”.³⁶

Regional councils do not maintain the highway. Roper Gulf and East Arnhem councils maintain community roads and some access roads, mainly from untied Commonwealth Financial Assistance Grants and Roads to Recovery. In 2025-26 East Arnhem Regional Council’s local-roads grant was \$858,214, Roper Gulf’s \$738,882 and West Arnhem’s \$778,109; East Arnhem’s Roads to Recovery allocation is \$1,087,307 over 2024–29, about \$272,000 a year (worked out here). Its 2025 contract for twice-yearly grading of council roads was \$1,852,239.68.³⁷

Homeland roads belong to no one in particular. Laynhapuy Homelands Aboriginal Corporation maintains more than 540 kilometres of minor roads connecting homelands to the highway, and 20 airstrips, with core funding from the Territory’s Department of Community Services. In late 2025 its chief executive reported meeting the Local Government Association of the Northern Territory about “the road conditions and current contract within our homelands”, and that letters to ministers “to try and return the roads contract to local operators” had not succeeded. Responsibility for homeland municipal and essential services passed from the Commonwealth to the Territory, which funds basic repairs through its Homelands Grants Program; the joint Homeland Housing and Infrastructure Program provided \$100 million from 2022 and \$120 million from 2024, mainly for housing and essential infrastructure.³⁸ Who grades or repairs the Mata Mata bush track itself is not stated in any source found for this paper.

6. Why it falls between the cracks: funding and jurisdiction

6.1 How roads are paid for

Australian road users pay fuel excise, 51.6 cents a litre in the second half of 2025, but the excise is not hypothecated. A House of Representatives committee found that the Commonwealth “does not currently hypothecate fuel excise”, and the Australian Automobile Association (AAA) calculates that only 53.7 per cent of fuel excise was spent on land transport between 2011 and 2021; it asks for all of it to be reinvested.³⁹ Commonwealth road money instead flows through budget-year programs. The highway’s capital funding came through national partnership arrangements and is now carried in the Infrastructure Investment Program’s Regional Roads Corridor (NT), whose \$630.7 million total does not separate the Central Arnhem Road. The Northern Australia Roads Program (\$980 million, up to 80 per cent federal) funds 20 projects; the Central Arnhem Road is not among them. The 2018 announcement of \$180 million for the highway was made with the Roads of Strategic Importance – Northern Australia package, and the capital is now carried in the Regional Roads Corridor. The \$150 million Remote Roads Upgrade Pilot funded The Gardens Road at Alice Springs, not an Arnhem road.^{40 41} Roads to Recovery and Financial Assistance Grants go to councils, which do not own the highway.

The formulas do not help. The local-roads component of the Financial Assistance Grants is divided between the states on fixed shares inherited from the old tied grants, not on road length or need, and the Territory receives about 1 per cent of the grants; within the Territory the Grants Commission allocates the roads

money on need, including road length, type and use.⁴² The Commonwealth Grants Commission does recognise remote road costs in sharing the GST: its 2025 review adopted a construction-cost gradient for remoteness, but discounted it by 25 per cent and the whole roads assessment by a further 12.5 per cent, which reduced the Territory's assessed needs. The Territory's GST share (a relativity of 5.15, \$17,605 a person in 2025-26) is untied, so nothing in it is reserved for the highway.⁴³

The motoring clubs see the same weaknesses from different places. The AANT notes that the Commonwealth gives the states and territories about \$10 billion a year for roads with no requirement to show the data behind their spending, and asks for funding decisions based on need and published safety ratings. The NRMA, which works in New South Wales, puts that state's council road backlog at \$3.4 billion in 2023-24, \$2.8 billion of it regional, and asks for scattered grant programs to be consolidated into one long-term stream. No NRMA statement on remote Indigenous roads was found.⁴⁴ In August 2026 Infrastructure Australia placed Territory road safety and connectivity on its Priority List, at the earliest stage, citing "frequent network closures" and noting that six of Australia's eight most vulnerable road freight corridors are in the Territory.⁴⁵

6.2 The structural reasons

- Few users and high cost per user. The Territory's 2023 traffic counts put annual average daily traffic on the Central Arnhem Road at about 70 vehicles a day near the Gove end and about 195 a day near the Stuart Highway, with coverage counts of about 35 to 126 a day at stations between Bulman, Mainoru and Barunga.⁴⁶ The \$355 million program comes to about \$29,600 for each of the 12,000 residents the road connects, and a full seal at \$1.2 billion to \$1.5 billion to about \$100,000 to \$125,000 each (worked out here). Benefit-cost appraisal that counts vehicles and travel-time savings will rank such a road low; that is this paper's inference, not a published finding.
- A small tax base and a large network. The Territory has 0.9 per cent of Australia's population and depends heavily on untied GST; road money competes with health, housing and police.⁴³
- Layered jurisdiction. The Territory owns the highway; councils own community roads; homeland organisations maintain homeland roads on Territory grants, and the contract for them has moved away from local operators; the Commonwealth funds capital in time-limited packages; and land councils and Traditional Owners must consent to works on Aboriginal land, as for Package 5. No single body is accountable for whether a homeland family can reach Nhulunbuy.
- Benefits and costs fall on different budgets. The road serves Commonwealth services (clinics, schools, Centrelink, employment programs), mining and tourism, but maintenance falls on the Territory budget. Gove has been supplied by sea since 1972, and no public advocacy for sealing by the mine's owners was found.⁸ None of the mine's royalties or profits is tied to the road (section 10).
- Stop-start promises. Funding was announced in 2018, 2019 and 2022, each time with a new headline figure; Package 3's start slipped four times; Package 6 was re-scoped (section 7).
- Capital over maintenance. The program is \$355 million of capital; routine maintenance runs at about \$2 million to \$2.3 million a year, and flood damage is repaired after the event through disaster arrangements.³⁶
- Little electoral weight. The road crosses the Territory seats of Arnhem and Mulka and the federal division of Lingiari, and its users are few and mostly Aboriginal.⁴⁷ The AANT's 2026 survey of risky roads was dominated by the Stuart Highway and Darwin roads, where most members live.⁴⁴

7. The A\$355 million upgrade: promised against delivered

The current program is \$355 million: \$280 million from the Australian Government and \$75 million from the Territory. The federal minister's 2026 release gives \$350 million (\$280 million and \$70 million); the difference is the Territory's \$5 million of early works at Bulman.⁴⁸ It was assembled in stages.

Year	Announcement or promise	What has happened
2012–15	Federal \$40 million package; Goyder River bridges (\$18.8 million); 2014 crossings (\$7.7 million); Rocky Bottom Creek (\$9.07 million)	Bridges built by about 2014–18
May 2018	Federal Budget: \$180 million	Program begun; design and consultation 2019
Nov 2019	NT adds \$45 million: “\$225m to seal about half the road”, most NT money “by dry season 2021”	About 25 km sealed by 2023
2021	DIPL: 25–35 per cent of the road sealed to dual-lane standard over 5–10 years from 2019	On current packages, about 6.5 per cent by end-2026 (worked out here)
Oct 2022	Federal \$100 million (from a \$350 million Tanami and Central Arnhem package); NT \$25 million	Package 3 awarded 2024, started Aug 2025
Total	\$355 million (Cth \$280m, NT \$75m)	Spending to date not published

Delivered so far: Package 1 near Beswick, 6.2 kilometres, completed in June 2021; Package 2 on the Goyder approaches, 14.4 kilometres, December 2021; and the Territory-funded Bulman airfield to community section, 4.1 kilometres, December 2022: about 25 kilometres in all. Package 3, from the Mountain Valley turnoff to the Mainoru homestead turnoff (158 to 176 kilometres, 17.65 kilometres), was awarded to Allan King & Sons for \$36.8 million in June 2024; its start was announced for September 2024, then April 2025 and June 2025, and construction began in August 2025, with completion expected in 2026. Package 6, awarded in July 2026 for \$21.1 million, widens an existing narrow seal near Barunga (15 to 29.4 kilometres) and adds no new sealed length; it replaced a 46.6-kilometre design-and-construct tender issued in 2025. Package 5, the eastern end from Boggy Creek to Dhupuma Road (544 to 645 kilometres), was expected to go to tender in September 2026, with award around March 2027, “subject to endorsement”.⁴⁹

Against the promises (all worked out here): about half the road is roughly 320 kilometres, and 25 to 35 per cent is 160 to 225 kilometres. About 25 kilometres is 3.9 per cent of 645; with Package 3, about 42 kilometres, or 6.5 per cent. At Package 3's rate of about \$2.1 million a kilometre, sealing the remaining 600 or so unsealed kilometres would cost roughly \$1.2 billion to \$1.5 billion before major bridges. That is an estimate, not a government figure; the only published whole-road estimate is about \$500 million, from the East Arnhem Regional Economic Development Committee in 2014.⁵⁰ The Territory's 2026-27 budget lists \$201 million for continuing works.¹⁵

The bridges are the program's clearest gains. The Goyder River crossing (three single-lane bridges and realignment, Norbuilt, \$18.8 million, 2012–14) was aimed at what had been a closure of about four months a year; Rocky Bottom Creek and rectification of the Goyder bridge followed (Sitzler, \$9.07 million, 2015); the Donydji Creek bridge was designed in 2012 and built by 2018; and the Mainoru River has had a

concrete causeway since about 1999.⁵¹ The Waterhouse River and Dook Creek floodplain near Beswick is Package 4, planned for tender in 2027.¹¹

8. Vehicle damage, freight and transport costs

Rough roads raise every running cost. Applying the coefficients of the Australian vehicle operating cost model, rough gravel (roughness IRI 10, at 70 kilometres an hour) costs about 44 per cent more per kilometre than smooth seal (IRI 2, at 90 kilometres an hour) for a four-wheel drive, 29 per cent more for a medium car, 42 per cent for a light rigid truck and 56 per cent for a semi-trailer (worked out here). The model was calibrated on sealed roads, so these figures are indicative and probably conservative for corrugated gravel.⁵² In a Top End study, rollovers were 30 per cent of crashes, and 40 per cent of rollovers occurred on unsealed roads against 11 per cent of other crashes, an adjusted odds ratio of 4.59; vehicle defects featured in 15 per cent of rollovers.⁵³ In Central Australia there were 12.9 people per registered vehicle outside Alice Springs against 1.6 in town, and lapsed registrations equal to 38 per cent of current ones: “intensive use of cars on poor quality roads”.⁵⁴

The costs reach the shop counter. In March 2026 diesel was \$3.99 a litre at Ramingining and \$3.28 at Gapuwiyak, against a Territory average of \$2.35 and \$1.81 in Darwin. The 2023 NT Market Basket Survey priced a fortnight’s healthy food for a family of six at \$1,105 in East Arnhem remote stores against \$682 at the Nhulunbuy supermarket. Barge freight to Nhulunbuy was put at “almost twice” the road cost in 2008, and the Arnhem Land Progress Association told the ACCC that barge freight costs three to four times road freight [snippet].³⁵ Around 2008 Laynhapuy put a return shopping and banking trip from a homeland at \$500 to \$1,200; at Donydji there were thirteen dead vehicles, the only mechanic and parts were in Nhulunbuy, and a bush taxi cost \$950 return.^{38 55}

9. The little roads: branch and homeland access

The highway is only the trunk. Every community and homeland is reached by a branch road, and the last kilometres decide whether a family can reach the clinic, the store or the funeral. These roads have different owners, funders and standards, and most are dry-season roads. They are not driveways. In the author’s words, the roads that connect the homelands are roads in their own right. The homelands and outstations lie to the north and south of the Central Arnhem Road, not only along it; the linking roads to Baniyala, Gapuwiyak, Bawaka, Buymarr and other outstations are roads in that sense, and they are not to be collapsed into the Mata Mata ridgeline figure.^{5 56 57}



Figure 4. “Look for people” sign on a red dirt road near Mainoru, 4 September 2017. Photograph: Ian Cochrane. Flickr, https://www.flickr.com/photos/iancochrane_2011/36969590721/. Licensed CC BY 2.0. The pictogram is a road sign, not a photograph of a person.

Community	Access from the highway	Surface and wet-season access	Who maintains and pays
Gapuwiyak	Turnoff at 482 km; about 30 km access road (relatively short and well maintained); 220 km from Nhulunbuy	Unsealed; access roads can be cut off in the wet; barge landing serves Bäniyala	East Arnhem Regional Council (FAG, Roads to Recovery); 2021–22 upgrade \$1.33m
Ramingining	Ramingining Access Road at 353 km; highway about 100 km south	“Dry season, four-wheel drive use only”; freight by barge to a landing 25 km away	Ramingining Link Road in the NT maintenance contract; Arnhem Link crossings \$10.8m
Bulman and Weemol	On the highway at about 251–256 km; Weemol 3 km away	Highway impassable at times at the Mainoru River and Flying Fox Creek; 4.1 km seal to the airfield	NT (highway); Roper Gulf Regional Council (Weemol road, upgraded 2023)
Bäniyala (Yilpara)	Much longer linking road; 206 km from Yirrkala, about 4 hours by 4WD; turnoff not documented	Corrugated dirt, impassable after heavy rain; road into community an obstacle; air food drops in the wet	Laynhapuy (homeland roads, NT-funded)
Mata Mata (and Gi’kal)	Turnoff about 61 km from Nhulunbuy; homeland road about 70 km (prospectus: about 79 km bush track)	Ridgeline road crossing major creeks; “often severely damaged” in the wet; 3.5–5 hours to Nhulunbuy	Roads to Recovery works 2015–16 (\$225,000); current maintainer not found
Donydji	Donydji turnoff (chainage not published); Gapuwiyak about 90 minutes	Creek bridge built by 2018; 2026 re-sheeting near the turnoff	NT (highway); Laynhapuy (homeland services)
Buymarr	About 90 km from Nhulunbuy (Laynhapuy); turnoff length not published	Coastal homeland road; wet-season detail not found for this paper	Laynhapuy (homeland roads, NT-funded)
Bawaka	Port Bradshaw / Gumatj homeland; access length	Linking road north of the highway; length not found	Homeland road (maintainer not found for

	not published	for this paper	this paper)
Mainoru	Station turnoff about 180 km; store 197 km	Concrete causeway; Package 3 seal ends at the homestead turnoff	NT (highway)

Gapuwiyak is the worked example. Its turnoff is at 482 kilometres, and the unsealed access road runs about 30 kilometres to the community, 220 kilometres by road from Nhulunbuy; the author recalls that road as relatively well maintained and short.⁵⁸ The health workforce profile notes that its access roads can be cut off in the wet. The road is a council road. East Arnhem Regional Council let a contract (T20-203416.3) for Gapuwiyak Access Road upgrades to Henderson Earthmoving and Haulage for \$937,028.29; 13.1 kilometres of in-situ material failed testing and had to be replaced with imported gravel, and a floodway was added; the variations were reported to council in 2021 and 2022, bringing the final value to \$1,331,024.12, 42 per cent more (worked out here). A separate Gapuwiyak–Mapurru culvert cost \$614,872.50, and in 2015 the Territory paid GHD \$17,864 for an economic assessment of the Gapuwiyak link to the highway.⁵⁸ On the journey in, the author bought fuel at Gapuwiyak: the Shark Trip Costs log records 32.37 litres at \$3.64 a litre on 26 September 2026 (\$120.00).⁵⁹ Gapuwiyak also matters beyond itself: its barge landing is how Bäniyala is supplied, until the wet cuts the road.³⁴

Ramingining, about 100 kilometres north of the highway, is reached by roads that are “dry season, four-wheel drive use only” and often impassable in the wet; most freight comes by barge to a landing 25 kilometres away. The Ramingining Link Road is included in the Territory’s maintenance contract, and a \$10.8 million package raised crossings on the Maningrida Access Road and the Maningrida–Ramingining road, including the Tompkinson and Cadell rivers.⁶⁰ ³⁶ Bulman (Gulin Gulin) sits on the highway itself, 312 kilometres from Katherine; it gained a 4.1-kilometre seal from the airfield in 2022, and Roper Gulf Regional Council completed an upgrade of the Weemol access road in July 2023.⁶¹

Bäniyala (Yilpara), on Blue Mud Bay, is a much longer linking road than Gapuwiyak’s short access: 206 kilometres from Yirrkala, about four hours by four-wheel drive. The author remembers it as always quite tricky; at one stage it was touted as a possible place for motorists to stay overnight, like the Mainoru store. The road into the community was an obstacle, but they had a good store and fuel.³⁴ Its corrugated dirt roads become impassable after heavy rain; the Army built a new store on the highest ground because, in the wet, Bäniyala “relies on food drops by air when they get cut off from the barge at Gapuwiyak”. It was the homeland of most urgent concern in the 2025 floods.³⁴ Donydji, reached from the Donydji turnoff, where gravel re-sheeting was under way in October 2026, is about 90 minutes by road from Gapuwiyak, which supplies its food and health visits, while its municipal services are meant to come from Yirrkala, some 300 kilometres away.⁷ ⁵⁵ (‘Dulcie’ in the transcript of the author’s notes is taken to be Donydji, the homeland already cited in the Transport paper; Laynhapuy homelands such as Dhälinybuy and Dhuruputjpi were considered, but no road information was found for them.)

Mata Mata is reached by leaving the highway about 61 kilometres from Nhulunbuy.⁴ The road from that turnoff into Mata Mata is about 70 kilometres in its own right: it runs along the ridgelines and crosses several major creeks.⁵ That same road also connects Nyinyikay and Rorruwuy, and Gi’kal and Barrakia farther down towards Dholtji (Cape Wilberforce). These are connections on the ridgeline road, not a new distance for it. The author raises the possibility that Dholtji was once reached by road from some point other than the Mata Mata turnoff, and a satellite view of the country immediately south-west of Cape Wilberforce shows no clear track to the cape.⁵ The 2019 prospectus put the same stretch at about 79

kilometres of bush track, “often severely damaged each year in the wet”, and the 140 kilometres from Nhulunbuy to Gi’kal at 3.5 to 5 hours by troop carrier.⁴ A Roads to Recovery project on the Mata Mata Road in 2015-16, worth \$225,000, realigned the Rainbow Creek crossing, added gravel and installed three box culverts, and the council did earlier culvert, floodway and causeway works.⁶² No published source was found for who maintains the track now. The main Transport paper describes a grocery run as a 400-kilometre round trip and Mata Mata as about two hours’ drive from Nhulunbuy; those figures differ from the 2019 prospectus and are left as the author’s observations there.⁶³

Other linking roads run to Bawaka, to Buymarr (about 90 kilometres from Nhulunbuy on Laynhapuy’s account) and to further outstations north and south of the highway. No sourced length for the Bawaka access was found for this paper; none of these figures is the Mata Mata ridgeline road of about 70 kilometres.^{56 57 5} Many other communities are connected by these roads and are not named here because the author does not know them.

The connecting roads make or break the sustainability of the communities in modern times. That remains a decision of the people themselves: the homelands are Yolŋu-led; ISX supports them and does not run them; Marthakal or Laynhapuy support the homelands. Sometimes places may not be lived in for many years. The problem is that they then become subject to marauders. In 2026 Mata Mata was ransacked by raiders who came into the community; they broke doors and threw out the contents of almost every house, including the school. Some say these people were illegal boat people coming from Indonesia. That attribution is recorded here only as what some people say; it is not asserted as fact.⁶⁴

The pattern is the same everywhere. The highway is a Territory responsibility with Commonwealth capital; community access roads are council roads funded from small untied grants; homeland roads are maintained, when they are, by homeland organisations on Territory grants or by contractors with no local base. Sealing the trunk will not, by itself, get anyone home in the wet.

10. The mine’s money and the road

It is astonishing, in the author’s view, that none of the mine’s profits or royalties have gone into the sustainability of the roads.⁶⁵ The companion paper *Where Gove’s Money Went* sets out what the Gove bauxite mine and refinery have produced on Yolŋu country since 1970–72 and where that money went. Its figures allow the point to be stated against the record.

On that paper’s estimates, in nominal dollars, governments received about A\$0.92 billion to A\$0.98 billion in statutory royalties between 1970 and 2025: the Commonwealth until June 1978, and the Northern Territory since. The Territory’s share was A\$647 million in 2015–2025 alone and about A\$125 million in 2025, and it received a further A\$76 million or so in licence and other fees in 2017–2025. The Commonwealth paid an equal amount from its own budget into the Aboriginals Benefit Account as royalty equivalents, and from 2011 the company paid about A\$15 million to A\$18 million a year to Traditional Owners under the Gove Traditional Owners Agreement.⁶⁶ The owners’ return is mostly unpublished, but Gove was valued at about A\$2.5 billion in 2001, Alcan reinvested US\$2.3 billion in the refinery expansion, and the paper’s illustration puts Gove’s share of Rio Tinto’s bauxite earnings before interest, tax, depreciation and amortisation at about A\$2.2 billion in 2019–2025 alone. Company income tax attributed to Gove was US\$13.4 million in 2015, nil in 2017–2024 and US\$6.6 million in 2025.⁶⁷

None of these streams is tied to the road. The Territory keeps its royalty for its own purposes. The royalty equivalents fund land councils and Territory-wide grants, with 30 per cent going to the affected local groups, and the Agreement payments go mainly to the Gumatj and Rirratjingu clans.⁶⁶ The road's capital comes instead from ordinary budget appropriations: \$280 million from the Commonwealth and \$75 million from the Territory in the current program, announced with the Roads of Strategic Importance package and now carried in the Regional Roads Corridor, with routine maintenance let as a Territory period contract (sections 5 to 7). Under the 1968 agreement the company funded the Gove township, except its school and hospital, and the port, and the town "received company-built infrastructure"; this research found no evidence that they built or paid for the overland road.⁶⁸ Even the fuel the mine burns adds little to the excise that might in principle fund roads: fuel used off public roads in mining is eligible for fuel tax credits, and no Gove figure is published.⁶⁷ The record therefore does not show that no dollar of mining revenue has ever reached a road, since the Territory's royalty enters its budget with all its other revenue and cannot be traced to particular spending. What it shows is narrower and firm: no royalty or profit stream from Gove is dedicated to the Central Arnhem Road or to the homeland roads, and the road has been funded as an ordinary budget item, in time-limited packages.

The scale of the two sets of figures can be compared (all worked out here). The Territory's Gove royalties of A\$647 million in 2015–2025 are about 1.8 times the whole A\$355 million upgrade program, and about 8.6 times the Territory's own A\$75 million contribution to it. The 2025 royalty alone, about A\$125 million, is more than 50 times the cost of a year of routine maintenance from Bulman to Nhulunbuy under the current contract, about A\$2.3 million (section 5). The Roads to Recovery works on the Mata Mata Road in 2015-16, A\$225,000 in all, would be less than 0.2 per cent of that one year's royalty (section 9). The comparisons are illustrations, not a claim that the royalty should have paid for these works; they show the order of magnitude between what the country has produced and what has been spent on the roads across it.

The homeland roads are further from the money still. Laynhapuy, which maintains more than 540 kilometres of homeland roads on Territory grants (section 5), received A\$2.67 million as its share of Gove royalty equivalents in 2023–24; no source found for this paper shows how much of that, if any, is spent on roads. Marthakal and Mata Mata lie outside the published Gove distribution altogether.⁶⁸ The royalties paper puts the general point this way: "The point is not that royalties should be hypothecated. It is that homeland infrastructure has been treated as an afterthought in a region whose resources have financed infrastructure elsewhere."⁶⁸

The window is closing. The last Gove bauxite is due in 2029. The Territory holds A\$974 million in security for the closure and rehabilitation of the mine, about the same as all the royalties paid on Gove in 55 years, but that security is a guarantee against the mine's own closure costs, not money for roads.⁶⁹ When the royalty stream ends, Nhulunbuy and the homelands will depend more on the road, not less (section 4). Whether a share of mining revenue should ever have been set aside for the roads, and how, is a question for governments and for the Yolŋu land holders and their decision-making bodies. The record shows only that, for 55 years, it was not.

11. Representation

The highway crosses the Territory electorates of Arnhem, which includes Bulman, and Mulka, which includes Mata Mata, and the federal division of Lingjari. The newly elected member for Mulka is Yiwarr McGrath, the first Yolŋu registered nurse and the 2021 Northern Territory Young Australian of the Year. He

replaces Yingiya Guyula, the first trained Yolŋu pilot in Arnhem Land. For the first time, the seat that covers Mata Mata is held by a Yolŋu nurse who has seen the clinic runs and the highway runs for himself.⁴⁷

12. Conclusion

The Central Arnhem Highway is the one road into East Arnhem Land that is meant to work all year, and for much of the wet it barely does. It is passable in principle and very hard going in practice; closures, officially about nine days a year, are only the extreme. The road began as a mining survey track and was made usable by Territory graders in the 1980s. Since 2012 it has had well-built bridges and, since 2018, a \$355 million program that has so far sealed about 25 kilometres, roughly 4 per cent of its length, against a 2019 promise of about half.

The reasons are structural rather than accidental. Fuel excise is not returned to roads; Commonwealth money comes in time-limited packages; the Territory's tax base is small and its network vast; the grant formulas fix or discount remote road needs; and the highway, the council access roads and the homeland roads belong to three different systems, none of which is answerable for whether a homeland family can reach a clinic or a shop. And although the country the road crosses has yielded nearly A\$1 billion in royalties to governments since 1970, and a mine valued in the billions of dollars, no royalty or profit stream from Gove has been dedicated to the road or to the homeland roads that leave it (section 10). Those who bear the cost, in wrecked vehicles, shredded tyres, \$3.99 diesel and \$1,105 food baskets, have the least electoral weight.

The argument of this paper is therefore simple: access to the homelands depends on the whole road, from the Stuart Highway to the last creek crossing before Mata Mata, and it needs a funded owner for each part, maintained to a stated wet-season standard. Whether and where to seal, the trade-offs of cost, who pays and the effect on country, are for local councils and Aboriginal decision-making bodies, not outside commentators, to decide.

Notes

1. Wikipedia, "Central Arnhem Road" (route C24; Stuart Highway junction 51 km south of Katherine; major intersections at 180 km (Mainoru Cattle Station), 353 km (Ramininging Access Road), 482 km (Gapuwiyak Access Road) and 646 km (Dhupuma Road); NLC permit), drawing on the NT Infrastructure Plan and Pipeline 2022 and the East Arnhem Land travel guide. Visit East Arnhem, Central Arnhem Road page.
2. DLI, Central Arnhem Road upgrades (645 km). Wikipedia (663 km). Visit East Arnhem and Developing East Arnhem (675 km). ourterritory.com, Central Arnhem Highway (710 km, Katherine to Nhulunbuy).
3. Infrastructure NT, NT Infrastructure Plan and Pipeline 2022, as quoted in Wikipedia, "Central Arnhem Road": over 12,000 residents; Nhulunbuy "the only large regional centre in the Northern Territory not connected to the National Highway network via a sealed road".
4. Botsman (2019), Mata Mata Creative Trust prospectus: Nhulunbuy to Gi'kal 140 km, of which 61 km is the graded road and 79 km bush track "often severely damaged each year in the wet"; 3.5 to 5 hours by four-wheel-drive troop carrier.
5. Peter Botsman, personal communication, October 2026: the roads that connect the homelands are not driveways but roads in their own right; the road into Mata Mata is about 70 kilometres, running along the ridgelines and

crossing several major creeks; the homelands and outstations lie to the north and south of the Central Arnhem Road, not only along it; linking roads include those to Baniyala, Bawaka, Buymarr and other outstations, which are not to be collapsed into the Mata Mata 70 km figure. The turnoff from the Central Arnhem Highway remains about 61 kilometres from Nhulunbuy (Botsman 2019 prospectus). Peter Botsman, personal communication, 9 October 2026: that same Mata Mata ridgeline road also connects Nyinyikay and Rorruwuy, and Gi'kal and Barrakia farther down towards Dholtji; these are connections on the road, not a new kilometre figure for it. Gi'kal: Botsman (2019), Mata Mata Creative Trust prospectus, places Gi'kal on the same bush track from the Central Arnhem turnoff (road journey ending at Gi'kal, 140 km from Nhulunbuy) and "just to the south-west of Point Wilberforce"; matamatahomelands.com treats Gi'kal as the neighbouring Dhuwa homeland to Mata Mata. Barrakia is named from Peter Botsman, personal communication, 9 October 2026 only; no distance is given, and his existing papers in this set do not use another spelling. Dholtji is Cape Wilberforce (McIntosh 2006 / boats paper). The author also raises the possibility that Dholtji was once reached by road from some point other than the Mata Mata turnoff (personal communication, 9 October 2026). A careful Google satellite look on 9 October 2026 of the country south-west of Cape Wilberforce (about -11.90 to -11.96 S, 136.51 to 136.58 E) showed no pale dirt track or cleared road to the cape. The only linear mark was a short dark sinuous line about 0.3 km long near -11.937 S, 136.553 E, darker than its surroundings and more like drainage than a vehicle track; it does not run to the cape. Maps had no labels for Mata Mata or Gi'kal. A track under canopy might not show. The paper therefore says only that a satellite view of that country shows no clear track to the cape, and does not claim a faint discontinuous track; the paper does not say the Mata Mata road itself reached Dholtji. Djarrimi appears only as a road waypoint 5 km from Gi'kal in the same prospectus itinerary and is not treated here as a named homeland.

6. Roper Gulf Regional Council, Bulman (Weemol) community page (sealed 118 km to Beswick, then 194 km of dirt). RAHC/NTRLP, Bulman community profile (2024) (110 km sealed). DLI, Central Arnhem Road upgrades (package list). "More than 85 per cent unsealed": NT and trade press, collected in the author's research notes on Central Arnhem Road budgets (6 October 2026).
7. White (2016), "A history of Donydji outstation," in Peterson and Myers (eds), *Experiments in Self-Determination*, ch. 16 (read directly): the mining survey road, the original road through Donydji, the Donydji airstrip (1968), Lindsay (1883), Mainoru and Roper River Mission, Gapuwiyak "about 90 minutes away by road", and services from Laynhapuy at Yirrkala "some 300 km to the north-east".
8. Lee (2014), *Journal of Australasian Mining History*, on the Commonwealth–Nabalco agreement of 23 February 1968 and supply of Gove by sea. Gove airfield: NT Place Names Register and Pacific Wrecks [snippet]. No source was found for Nabalco funding of the overland road, or for a wartime road.
9. Northern Territory Government Gazette No. G42, 23 October 1991, p. 5, notice 13/42 (Place Names Act — Naming of Public Place), Territory Stories handle 10070/774739: "I, MAXWELL HENRY ORTMANN, the Minister for Lands & Housing, in pursuance of section 11 of the Place Names Act, approve the recommendation contained in a report by the Place Names Committee that the road shown by a heavy black line on the plan appearing in the schedule be named CENTRAL ARNHEM ROAD as indicated on that plan. Dated 11th October, 1991." Schedule headed "ARNHEM LAND LOCALITY". NT Place Names Register, Place Id 5607, records Date Registered 23 October 1991, Gazettal NTG42 (i.e. G42), and states that prior to official naming in 1991 the route was commonly known as Mainoru Road. <https://www.ntlis.nt.gov.au/placenames/view.jsp?id=5607> ; <https://territorystories.nt.gov.au/10070/774739> (seen 9 October 2026).
10. Road Transport Hall of Fame, story of Dennis "Snowy" Noakes. ourterritory.com, Central Arnhem Highway (traveller's account). Maningrida Progress Association, MPA history (the Maningrida–Bulman track).
11. DLI, Central Arnhem Road upgrades (long-term objective). Albanese (2012), media release on the Goyder River crossing award (average wet-season closure to be cut from about four months to one or two weeks) [snippet]. GovMarket, Goyder River crossing contract, Norbuilt, \$18,796,995.98, awarded 9 October 2012 [snippet].

- GovMarket, Rocky Bottom Creek crossing and rectification of the Goyder River bridge, Sitzler, \$9,071,584.95, awarded 26 August 2015. Wikipedia, citing Briggs and Truss (2014), \$7.7 million for the Donydji, Goyder and Mainoru crossings.
12. Visit East Arnhem, Central Arnhem Road itinerary (“accessible year round ... temporarily closed due to flooding between October and May”). Developing East Arnhem, “Central Arnhem Road” (about nine closure days a year in the peak wet; DIPL maintenance “on average over \$2 million per annum”; Goyder bridge \$34.1 million and Rocky Bottom bridge \$7.5 million).
 13. Wikipedia, “Central Arnhem Road,” Driving conditions, citing the East Arnhem Land travel guide. NT Government, Construction Snapshot Q4 2023 [snippet].
 14. RAHC/NTRL community profiles: Gapuwiyak (2023 and 2024) and Bulman (2024). Wikipedia, “Bulman, Northern Territory” (Tropical Cyclone Paul, 2010).
 15. NT Budget 2026-27, Regional overview: East Arnhem (\$201 million for continuing Central Arnhem Road works; travel and freight “mainly by air or sea”) and Big Rivers (\$30.5 million Roads Repair Package naming the Central Arnhem Highway; \$100 million Flood Recovery Fund).
 16. Annual Traffic Report 2023, Table 4D Road Closures and Restrictions: fifteen Central Arnhem Road restriction or caution records in 2023 (weight and GVM limits, high-clearance four-wheel drive, road works and damage); none coded as full road closed in that table.
 17. ABC News, “East Arnhem Land homelands cut off from food and fuel due to NT flooding,” 1 May 2025. ABC News, “More than 100 Northern Territory roads closed or impassable following recent floods,” 27 March 2026. GovMarket, gravel re-sheeting 576–593 km awarded to Woodhill & Sons (Event 1213 flooding; REPA) [snippet].
 18. Botsman, Peter (2015), “When the World Turns Upside Down: A Glimpse of the Impact of Cyclones Lam and Nathan on Remote Aboriginal Homelands,” Working Papers, released 5 May 2015.
https://www.workingpapers.com.au/files/papers/when_the_world_turns_upside_down_master_1.pdf
 19. Peter Botsman, personal communication, 9 October 2026: a prison road-works team cleared about fifteen kilometres of fallen trees after Cyclones Lam and Nathan; he and Gary Baker, then the Marthakal officer posted at Nyinyikay, worked for several weeks to get the trees off the road. Spelling Nyinyikay follows the author’s other papers in this set.
 20. Peter Botsman, personal communication, 9 October 2026: tracks get overgrown and are left unmaintained; the classic situation is a big tree coming down, and a diversion is made into the bush around it.
 21. Botsman (2015), When the World Turns Upside Down, p. 6 (PDF read 9 October 2026): “On the second night we were joined by Ian and James Gurruwiwi. They had incredibly got their vehicles through the morass by cutting across country. The ability of the Yolngu drivers to cut through the bush is legendary. Yes cars are invariably damaged, sometimes badly, but to even go ten metres in cyclone ravaged bush, let alone 50 kilometres is a feat that is beyond the most intrepid bush driver.” The essay does not say that the drive reached or started from the Central Arnhem Highway, or that a vehicle was wrecked. Peter Botsman, personal communication, 9 October 2026: they made it to the Central Arnhem Highway driving overland, and the car was wrecked.
 22. Photograph: Peter Botsman. View over a white vehicle bonnet down the Central Arnhem Road, with dead trees still standing beside the highway; the author identifies it as cyclone damage to the bush still visible after some years. Personal communication, 9 October 2026.
 23. Peter Botsman, personal communication, 9 October 2026: the much-loved bush car series is a hit on YouTube; it shows how Yolngu adapt old cars and do completely improbable things; it is humorous, but not really.

24. Black As, web series. Director/writer/camera David Batty; co-director and co-writer Joseph Smith; co-creators Buddhi Lokuge, Joseph Smith, Chico Wanybarrnga, Dino Wanybarrnga, Jerome Lilypiyana and David Batty; developed by Rebel Films and Every Voice Counts; produced in association with the Australian Broadcasting Corporation (Black As website, Credits and “The Story of Black As”, <https://blackas.com.au/>, seen 9 October 2026). Season 1, Episode 1, “Trashed 4WD rescued after cyclone | Black As - Season 1 Episode 1”, Outback Boys channel, YouTube, <https://www.youtube.com/watch?v=cbeLp0Uw4lY>; Season 1 playlist <https://www.youtube.com/playlist?list=PLspk3OkkaL9o076sGnlyo1bXOMbgY3gfl>. Outback Boys channel page (<https://www.youtube.com/@OutbackBoysTV>), seen 9 October 2026: about 335,000 subscribers and 61.5 million channel views; the channel says it is owned and operated by Totem. The author called it the bush car series; no YouTube series under that title was found, and Black As is identified here as the closest match. It is distinct from Bush Mechanics (2001, Warlpiri Media Association and ABC, Yuendumu) and from Bush Car: The Exhibition (Short St Gallery, Broome, 2025).
25. Peter Botsman, personal communication, 9 October 2026: homelands are mentioned in Yothu Yindi songs; he named Garrathiya (written garrathaya) and remembered the verse about four-wheel drives locked all the way.
26. Yothu Yindi, “Tears for Law (Garrathiya Run)”, written by Mandawuy Yunupingu and Daniel Watson, on Birrkuta – Wild Honey (1996); also on One Blood (1999). Lyric as published by songlyrics.com and songtexte.com (licensed through Musixmatch), seen 9 October 2026, and quoted in Music Feeds, “Love Letter To A Record: Mitch Tambo’s Yothu Yindi’s ‘Tribal Voice’” (<https://musicfeeds.com.au/features/love-letter-to-a-record-mitch-tambo-yothu-yindi/>); not checked against the album booklet. One lyric site prints the place name as “Garathiyaran”; Garrathiya follows the song title and the Musixmatch text. Ngarrariyal Aboriginal Corporation (2019), Gunyangara Master Plan, Background Information: the Gumatj estate includes the Gumatj homelands at Dhaniya and Birany Birany and the Garrathiya cattle station. Dhanayangala is not located here.
27. Peter Botsman, wreck count on the Central Arnhem Highway, 27 September 2026: 30 wrecks against a personal record of 150; diesel over \$3.50 a litre. First-hand observation, not survey data.
28. Botsman (2025), “Grand Final Night at Conway Station,” Working Papers: third-person account of an HJ60 that lost six tyres between Nhulunbuy and Mainoru and a seventh after Mainoru; three replacement tyres fitted at Conway Station; 3 October 2022. The published piece does not name the driver.
29. Peter Botsman, personal communication, 9 October 2026: another accident near Gapuwiyak in the week before that date. NT News (8 October 2026) published a paywalled report of a fatal Arnhem Land rollover in which a woman was killed and five people were taken to hospital; the open headline and URL do not state Gapuwiyak, and no matching NT Police newsroom release was found for that week. Place near Gapuwiyak is therefore cited as personal communication only; the NT News facts are not attached to Gapuwiyak without a free confirmation of place.
30. Peter Botsman, personal communication, October 2026: in 2025, on a single stretch of the Central Arnhem Highway near Gapuwiyak, about 20 or more vehicles were bogged (his memory, not an official count). ABC News, 1 May 2025, reports cars bogged in thick mud in east Arnhem Land during the floods (supplied photograph; caption does not count vehicles or name Gapuwiyak). No photograph matching the author’s memory of about 20 or more vehicles on one Gapuwiyak stretch was found for this paper.
31. Search of news, motoring-body and travel sources, October 2026 (Hansard not searched). The Grey Nomads Forum, “What road would you never travel on again & why?” (traveller’s comment on the Central Arnhem Hwy). Australian 4WD Action (2010), “20 Tracks You Must Drive” (5th), via Wikipedia. AANT, 2026 Risky Roads Report (summary post, 13 July 2026). ABC Radio National Breakfast, “Is the Tanami Road the worst highway in Australia?”. ABC News, “Poorly prepared drivers dicing with death on the remote Gibb River Road,” 6 September 2018. VroomVroomVroom breakdown “danger zone” index (2025), reported by Europe Says.

32. Venture North, “All you need to know about Cahills Crossing” and “How and when to safely cross Cahills Crossing”. Parks Australia, Kakadu Access Report. West Arnhem Regional Council, Visiting our communities. ABC News, “The unlikely killers near Australia’s most dangerous river crossing,” 22 July 2025. East Arnhem Regional Council, Ramingining community page.
33. Wikipedia, “List of highways in the Northern Territory,” Arterial roads (Central Arnhem Road, C24), seen 9 October 2026. Visit East Arnhem and DLI project page: designated state route. No DLI “all-weather” service-standard document was found.
34. Laynhapuy Homelands, Yilpara – Bäniyala page (206 km from Yirrkala; about four hours by four-wheel drive). CONTACT magazine, “Engineering food security for remote community,” 11 February 2025 (Army AACAP; air food drops when cut off from the barge at Gapuwiyak). ABC News, 1 May 2025. Peter Botsman, personal communication, October 2026: Bäniyala is a much longer linking road, always quite tricky; at one stage it was touted as a possible overnight stop for motorists, like the Mainoru store; the road into the community was an obstacle, but they had a good store and fuel. No sourced kilometre length for the Bäniyala link beyond the Yirrkala distance and drive-time above was found for this paper.
35. ABC News, “Remote fuel prices spike amid Middle East war,” 4 March 2026. NT Health, NT Market Basket Survey 2023. Hughes (2008), “Governments are failing East Arnhem Land,” CIS. ALPA, submission to the ACCC [snippet]. ABC News, Nhulunbuy transition, 4 July 2026 (mine to cease production in 2029; Woolworths to close in 2027).
36. NT Tenders Online, tender 25094, repairs and maintenance of the Central Arnhem Road (Bulman to Nhulunbuy), Ramingining Link Road and surrounding local roads, 36 months: Woodhill & Sons Pty Ltd (Northern Remote Concrete), estimated unit rates \$6,947,900, awarded 1 August 2025; “Aboriginal Enterprise: No”. Tender 25869, gravel re-sheet 426–434 km, \$1,766,452, awarded 29 May 2026. Northern Remote Concrete, About us (yards at Katherine, Nhulunbuy and Ramingining). $\$6,947,900 \div 3 =$ about \$2.3 million a year (worked out here).
37. Department of Infrastructure, Financial Assistance Grants, NT territory summary 2025-26 (EARC general purpose \$2,147,375 and local roads \$858,214; Roper Gulf local roads \$738,882; West Arnhem \$778,109). Roads to Recovery allocations 2024–29 (EARC \$1,087,307) [snippet]. East Arnhem Regional Council, public tenders and quotations (grading contracts; Gapuwiyak Access Road upgrades and variations; Gapuwiyak–Mapurru culvert).
38. Laynhapuy Homelands Aboriginal Corporation, Homeland Services and Civil works pages (more than 540 km of roads and 20 airstrips; core funding from the NT Department of Community Services). Laynha Newsletter (late 2025), message from the CEO. NT Department of Housing, Local Government and Community Development, Homelands page (Homelands Grants Program; transfer of homeland services to the NT in 2016; HHIP \$100 million from 2022 and \$120 million from 2024). Laynhapuy, submission 28 to the Senate committee (about 2008): 540 km of minor roads, return trips of \$500 to \$1,200, homelands up to 260 km from Nhulunbuy. Mata Mata is a Marthakal homeland (NT Place Names Register id 529). Marthakal Homelands, Homeland Services page (municipal and maintenance services for Marthakal homelands); no published contract naming the Mata Mata bush track was found. Grealy (2025) on the 38% real cut to the NT Homelands Program 2016–2023 (AHNT).
39. AAA, “Funding a 21st century transport system” (excise 51.6 cents a litre in the second half of 2025). AAA, Policy Priorities, Federal Election 2022, and 2022-23 pre-budget submission (53.7 per cent of fuel excise spent on land transport 2011–2021; call to reinvest 100 per cent). House of Representatives Standing Committee on Communications, Transport and the Arts, report on road funding, ch. 4 (the Commonwealth “does not currently hypothecate fuel excise”).
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63. Botsman (2026), Planes, Roads, Automobiles (main paper). Botsman (2025), "Grand Final Night at Conway Station."
64. Peter Botsman, personal communication, 9 October 2026: the connecting roads make or break the sustainability of the communities in modern times; that remains decisions of the people themselves; sometimes places may not be lived in for many years; they become subject to marauders; in 2026 Mata Mata was ransacked by raiders who came into the community, broke doors and threw out the contents of almost every house, including the school. Some say these people were illegal boat people coming from Indonesia; recorded only as what some people say, not as established fact. Clarification with that communication for this paper: the homelands are Yolŋu-led; ISX supports them and does not run them; Marthakal or Laynhapuy support the homelands.
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The author's first-hand observations and unpublished notes are cited in the notes and not listed here. Sources marked [snippet] were seen only in search-engine summaries.