

WORKSHOP NOTES



Darwin

Date: 16 July 2014

Key issues raised:

- as Aboriginal people got control of their land, they wanted to do something with it so they could stay on their country and develop economies that provide jobs
- Aboriginal people support development as long as they get equitable access to the wealth, which means getting off welfare and getting young people into jobs
- the Tiwi Land Council outlined the role of its eight corporations in generating wealth from Tiwi land and the urgent need for roads to link communities, get kids to school, improve safety and get produce to market
- Tiwi revenue has come from mining, forestry and tourism, including three luxury lodges to create an income from fishing
- a Singapore company has invested \$50 million in Port Melville, which will help with the exporting of wood chips, and the Land Council is setting up a marine supply base
- the Tiwis were the first to adopt a 99-year township lease (at Wurrumiyanga), which has created a flow of revenue and opportunities for business
- the Larrakia Development Corporation has plans to develop the Cox Peninsula once the return of Kenbi land is finalised, however, rather than create freehold housing (as it did with the Darla sub-division), the Corporation will also develop and retain commercial land to ensure a longer-term revenue stream
- work is being done by the Department of Land Resource Management to identify areas with soil and water that make land suitable for development
- what is under development now is at capacity, so the government is trying to identify new water resources and more efficient ways of using them – only about 3% of the Territory is properly understood for water
- The Territory won't be seeing rolling plains of irrigated development, but more mosaic development: there are only small pockets of land regarded as suitable for niche agriculture
- a key issue is that water falls when it isn't needed and evaporates quickly from shallow dams when it is needed: the CSIRO is looking at other storage options

- the development of greenfield agricultural sites requires substantial infrastructure (roads, power, borefields, housing, sheds, cold chain, transport to markets) which makes most projects unviable
- understanding water is critical to the growth of communities
- it is hard to get funding without long-term tenure – Centrefarm is exploring alternative funding models for S19 leases with the NAB that includes government bonds that would be paid back. The Tiwi Land Council has experienced trouble getting banks to fund the purchase of equipment even when they have leases and overseas investors
- social capital needs to be developed in parallel with infrastructure, so Aboriginal people have the commercial and governance skills to make good decisions about use of their land
- although there is current congestion at East Arm Port due to INPEX project cargo, in general it has unused capacity
- the issue is that it is a general cargo port (as opposed to a dedicated minerals port where equipment has dedicated users)
- the railway has made substantial strategic investments to improve productivity since its purchase by Genesee and Wyoming in 2010 and now has extra capacity
- the railway is a commercial operation and investment in additional infrastructure such as passing loops and spur lines would be warranted only by long-term certainty that this extra capacity is in the right place for the right customers, whereas there is considerable volatility in industries such as mining
- the Adelaide to Darwin Railway is standard gauge and has standard axle loadings: dedicated heavier gauge railways have been built to support bulk mineral trains, eg in WA, but this cost billions of dollars and governments are unlikely to invest in this
- this project is designed to provide a strategic, long-term approach to developing infrastructure that will unlock social and economic benefits, build collaboration between governments and the private sector and look at potential connections across the WA, Queensland and SA borders.

Welcome to country (Dorrie-Anne Raymond)

- We enjoy the benefits of a capital city: access to facilities and services, so why is it that Larrakia are lacking access to the benefits of a booming economy? It is frustrating to our people.
- Most of us want to be gainfully employed.
- Larrakia are open to commercial partnerships and profit-sharing.
- The drive to develop the North is welcome, it makes sense, but there is a rider: equity, building local capacity and wealth.

Background to the project (Clare Gardiner-Barnes, CEO, Department of Transport)

- This study is not just about data. We want people on the ground saying what they want to see. It's important for us to listen to you and understand the issues you experience on a daily basis, what's driving you, what the banks are telling you.
- We have billions of dollars worth of needs, so we need a united voice and to be telling the same story.
- The frame of reference for the study is that the Department of Infrastructure delivers but the Department of Transport acts as a strategic policy arm of government.
- We are working collaboratively with other agencies on the project. Ernie Wanka put a proposal to the Australian Government for funding and they said to broaden it and include other areas. We are looking at tourism, agriculture, pastoral opportunities, horticulture, mining, oil and gas to prepare a 30-year plan.
- It's also important that we are working with the WA and Queensland Governments as we work on this and some of the feeder projects (from across the border).
- We are developing an Aviation Strategy and issues paper, we are about to start a Freight and Logistics Strategy and a Transport Services Plan.
- What we have done in the past hasn't been adequate to fund our infrastructure into the future. We need to think creatively. We need partnerships. We need long-term new money. We need to ensure that we engage with the right people and that they are ethical partnerships.
- The study will allow us to engage with traditional owners so we effectively grab the economic opportunities that are ahead of us.
- The regional focus is a chance to listen to the regional parts of the Territory that often get left out.
- There are a number of Department of Transport staff here today including Louise McCormick, Executive Director Transport Planning, who has come back after two years outside government. She is challenging us to think from an industry perspective.
- All of us need to step outside our comfort zone if we are to come up with creative ideas to develop the Territory. We need to be thinking about streamlining our approaches.
- From a productivity perspective, some people thought the (Adelaide to Darwin Railway) wasn't a good investment. If the bureaucrats in Canberra come up with that sort of thinking, we have a long of work ahead of us. Recent budget announcements saw us get less than 1% of the Australian Government's transport budget. There are still issues we have to raise at the highest levels in Canberra.

Northern Australia Development (Luke Bowen, General Manager, Northern Australia Development Office)

Provided an overview of the role of the Northern Australia Development Office and the government's priorities in developing the north.

Presentation

James Mathews (KPMG), David Rolland (GHD), Valerie Nullet (Parsons Brinkerhoff) and Jane Munday (Michels Warren Munday) spoke to the MomeNTum presentation.

(see slides)

ENABLING INFRASTRUCTURE PANEL

Presentations from:

- Bert Easthope, Genesee & Wyoming (slides not available)
- Terry O'Connor, CEO, Darwin Port Corporation (slides available)
- Steve Pople, Executive Director Water Resources (slides available)

Bert Easthope:

- Genesee & Wyoming operates on 3500 km of track in Australia, including the 2200 Tarcoola to Darwin line, with six intermodal round trip services a week.
- G&W has made substantial investments since purchasing the Freightlink business in 2010
- The rail's performance was ordinary, particularly with intermodal freight, so G&W looked at the primary causes of delays and invested in some strategic assets including nine new locomotives at a cost of \$6 million each and new crew vans. It purchased the Alice Springs terminal (\$9 million) and lifting equipment.
- In December, maintenance was bought in-house, with about \$3 million spent on new equipment. Have been doing rail grinding over the year and flood mitigation work and spent \$4 million on level crossings.
- Freight availability has improved from 18% in 2010 to 90% in 2014 without any new passing loops. Reliability has been improved with strategic investments in new locomotives and in-line fuelling.
- The intermodal business has grown 7/10% a year, which has improved the company's performance.
- To build a passing loop costs \$6 to 8 million. But once you have built it, it isn't going anywhere so you need to know it's in the right place for the right reasons.
- Current minerals freight task is 5 mtpa south and 2.5 mtpa north of bulk product.

- We are not about building on speculation , we have to make the right investment at the right time.
- We are not frightened to invest but it has to be in the right infrastructure.

Questions:

About gauge and axle loads:

- The gauge is 4'8" standard gauge.
- Axle loads is standard for general freight (21-tonne axle load for 115 km/h trains and 23 tonne axle load for 80 km/h trains). In the Pilbara there is purpose built line for huge trains moving huge volumes. Governments have to do a business case: where and how are you going to get the volume.

Spur lines:

- Cost is about \$1 million a kilometre.

Terry O'Connor

- Outlined the principal freight that goes through the port, including petroleum, minerals, rig services, livestock, container and general cargo, cruise and naval vessels.
- It generally takes a population of 500,000 to support a major container terminal. Costs are influenced by the economies of scale. However, our costs are lower than at most Australian comparable ports.
- It's a myth that you can 'build it and they will come'. The port has to know it has a customer base to support realistic investment in infrastructure.
- For the past five years, all capital works has been funded by income.
- The Government sees the port as an economic driver, so the Port Corporation answers directly to the Chief Minister as part of the economic development portfolio.
- The Port has been full for the past two months because of INPEX project cargo. Normally it's at 42-46%. For the past two months it's been running at 65-75% which is at capacity. It can't get busier without delays. But a lot of the project cargo will finish in October. Live export cattle will increase. The decline in iron ore will free up some berth space.
- Recent mining collapses indicate the volatility of providing infrastructure. You can't forecast long-term. Infrastructure is very expensive and it takes a long time to deliver.
- We do have space to build and lots of spare land and capacity behind the wharf.
- We are trying to be smarter by improving the productivity of the wharf itself.

- The railway was built for containers, whereas minerals and mineral products have become the railway's biggest customer, which wasn't foreseen.
- We are experiencing steady growth in imports, 5-7% projected growth over the next five years, which reflects population growth.
- We are a general user wharf trying to serve a lot of customers. We are not a Port Hedland.
- The question always is, 'who has priority'? For us it has to be first in, first served.
- We get 700 new cars every month. With the closure of the car manufacturing plants in Australia this is likely to increase to 1200 to 1500 per month.
- Territory Resources exports 1.5 million tonnes. Noble has invested \$133 million and we think they are here for the long haul. We think they will get back into production.
- Bootu Creek: we see them as going for the next 15 years.
- Sherwin Iron: not sure what will happen.
- There are 42 mines in the area but they are small. They have issues raising finance. They are looking for common user facilities but who will build it, what is the design. What is needed for phosphate is different to what is needed for iron ore. What is the mine life?
- Offshore oil and gas is a boom and continues to be promising.
- The cost to build the Marine Supply Base was \$115 million in two years and the first two ships came at the beginning of June. It has provided 286 metres of wharf and covers six hectares.
- We created 7.5 hectares of land from the dredge spoil from the Marine Supply Base.
- Dredging at Charles Point Patches has increased the depth from 10.1 down to 14 metres, creating all tides access. For \$4 million we got a 30% increase in productivity so we don't have to stop loading at low tide.
- We have invested \$7 million in a control tower and harbour management systems, which has increased productivity, ie we are maximising our return rather than building new infrastructure.

Steve Popple

- People look at the map of Northern Australia and think there must be so much water but there isn't enough. It comes when people don't want it.
- Outlined the current precincts covering the Mataranka Tindal Limestone Aquifer, Oolloo Dolostone Aquifer in the Daly Region and the Katherine/Tindal Aquifer.
- The Department is trying to work out where the land and water resources align for arable land. There was a study done in 2011 on good cropping soil where there is access to ground water. This year the Government provided an increased budget to do a land and water resources assessment across the Territory.

- The Territory is big but there are limited areas with both good water and soil.
- There are issues with good infrastructure so producers can get their crops to market.
- Wildman River has good soil and access to water. DLRM will be doing some investigations there.
- On the Tiwi Islands we are working on Bathurst Island, there will be a drilling rig there next week. On the north of Bathurst, we have identified a potential water resource to support horticulture but we need to be sure about the quantity.
- Investors are looking at the reliability of supply and the quality they can access before they are willing to invest.
- We are looking at flora and fauna and hope to have that work finished by June.
- Working south of Larrimah towards Elliott. We know there is water there but we need to understand it much better.
- We have a good understanding of about 3% of the Territory's water. So it's important to get out there to put holes in the ground to understand the resource.
- Ali Curung and Ti Tree have identified potential soils but we need to do more work. There are not a lot of users. There as about 10 GL/year.
- We will have a focus on regional communities, eg Ngukurr and Wadeye to match land and water information.
- We are trying to unlock some of the other potential around surface water. What is the potential to use that, eg through off-stream storage, where you take water during peak flow and store it.
- The Australian Government's green paper (Developing the North) had an interest in water. The CSIRO has been commissioned to do a rapid look across the Top End.
- What is under development now is at capacity, so we need to identify new resources and more efficient ways of using them.
- We won't be seeing rolling plains of irrigated development, but more mosaic development.
- The other side is having the water to support growth in communities. Water is critical to our thinking. How do we drive demand forward for agriculture, mining and industrial development. There has to be reliable potable water and maintaining the quality of the water resources to ensure we are maintaining environmental flows that are important to the tourism industry and why we all live here.
- Information from the investigations will be released on our website (www.lrm.nt.gov.au/soil/reports)

Ernie Wanka: Question about linking water quality with where roads are being built.

- Steve: We need to have confidence about the access and reliability of the resources.

Ernie Wanka: we are looking at road links to Daly/Ooloo, is that coming up?

- Steve: The challenge with the Daly is that it's an area with good soil and reliable for crops. However, we are constrained by access to water. We are at the limits of what we can pump out so we are looking at innovative ways to make more water available. There has been a rapid spurt of development down there.

Ernie: What about the future of dams to support agriculture?

- Steve: It's an easy word to throw around. There are challenges with dams in the NT, particularly with (the high evaporation of up to four metres per year). Dams lose a lot in evaporation, eg the Ord and Lake Argyle. To be efficient, they need to be deep, which limits where you can put a dam. The other issue is the economics of it. The CSIRO is looking at where to put sites.

Andrew Sawicki: Maybe there could be incentives to use water better?

- Steve: Currently there is no cost to accessing water. So it's a matter of getting policy settings right so people are more efficient in how they use water. And with the consumptive pool, it's about competition for the resources.

Jack Ellis: Question to Terry about cost of bringing fuel in at the port and how charges add to our fuel costs in the Territory?

Terry: I'm not sure but I can answer you it's more like 2 cents not 20. (Terry followed up. *And the answer is .007c a litre is what the port charges. This includes all port charges from Pilotage, Port Dues, Wharfage etc. Across Australia the price varies from .002c up to .025c per litre. Darwin is similar to most regional ports and also Melbourne, Adelaide and Fremantle.*)

DEVELOPMENT ON ABORIGINAL LAND

Tiwi Land Council

John Hicks introduced 'Team Tiwi'. Since 1 July, when he retired as CEO, the Tiwi Land Council has set up a management board which is responsible for the good management of the Islands. Staff include an environmental scientist, chief financial officer and staff on the island, like Brian Clancy (new CEO).

- Chair of the Tiwi Land Council is Gibson Farmer Illortaminni. We have increased the forestry estate to 30,000 hectares. We have had trouble finding bank funding for things such as trucks. We got the funding just as the price of wood chip is going up and now it's hard finding equipment. There is a perception by the banks about investment on Aboriginal land.

- Andrew Tipungwuti took six or seven elders around Europe and met Lord Bathurst. One of the elders asked him, 'how did you get so rich?' and he said, 'Never sell your land, lease it'. Andrew Tipungwuti is chair of the fishing lodges.
- Wesley Kerinauia is the Director of the Mantiwupwi Trust, the first to do a deal on township leasing. There is \$700,000 to \$800,000 flowing back to the Tiwis each year. We have developed a number of assets including hire cars and a supermarket.
- Brian Tipungwuti and Stanley Tipiloura. Brian was interested in the NT Government water report and the work on the capability assessment and opportunities for agribusiness and horticulture.
- John Wilson is a well-known Tiwi authority. He is a trustee for the East, where there is rutile mining by MZI Resources (formerly Matilda).

There are eight Tiwi Corporations:

- ❖ Tiwi Plantations
 - ❖ Tiwi Enterprises
 - ❖ Port Melville
 - ❖ Tiwi Islands Adventures
 - ❖ Mantiyupwi Pty Ltd
 - ❖ Tiwi Islands Training and Employment Board
 - ❖ Tiwi College and the Tiwi Education Board
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- The big issue for the plantations is roads that link the main communities and the Tiwi College. Roads provide for safety, social benefits and maximise economic development. Equipment (to do roadworks) is broken down. Children have to stay home from school in the Wet. The Tiwi Land Council is looking for \$35 million for the Tiwi roads.
 - Gibson: I met John in 1975 when I was 21. I have been involved with John for a long time on the land council. We want to share our history. I have been involved in forestry since 1960. In 2009 the Tiwi plantations were owned by the eight Tiwi land owning groups.
 - Andrew: We have heard about the Marine Supply Base in Darwin. We are also setting up a small base on the Tiwi Islands. We have deep water. The port was a vision of our past elders to take trees overseas. Ezion (Singapore based company) has invested \$50 million in the Port. It is completed and ready for operations. We have 925 km of road on the islands. There is a train bringing fuel up, so we are setting up a fuel farm on the Tiwi Islands. If we can secure fuel for the Top End, it will be cheaper.
 - Tiwi Enterprises has 35 staff and provides a number of services, including cleaning, hire cars, accommodation, rangers and nursery.
 - Brian Tipungwuti said the Tiwi Islands Training and Employment Board wants to get access to the former CDEP program sheds, workshops and 12 staff houses.

Everything owned by CDEP had been taken over by the Tiwi Regional Council and TITEB wants the assets handed back.

- Education had been poorly maintained on the islands over the past 100 years whereas the Tiwi College has an average of 82.95% attendance. It needs roads for safety and to ensure student attendance, as well as expansion to meet needs
- Wurrumiyanga needs a new Sealink ferry pontoon landing and tourism infrastructure.
- For years, people fished and camped on the Tiwi Islands without making any contribution. There are now three lodges on the islands. Tiwi Islands Adventures needs roads and boat ramps.
- Stanley said township leasing has been good to the Tiwis and provided a chance to get investors to be part of the Tiwi community. The Tiwi Land Council would welcome investment in roads and a floating pontoon.
- John Hicks: Cost benefit analysis is based on optimising things and the information gathering process for decisions is about concluding their aspirations. Their aspirations are what is driving them and what continues to drive them.
- Unemployment is set to be 6.7%. The potential labour force is 580. There are 718 people who are not looking for work excluding people who are not at school and people over 64. In the 90s, life expectancy was 47, now it's 65. People are living longer, becoming better educated.
- The influence of a conference like this to support the infrastructure needs of powerful people who are determined to achieve their aspirations.

Nigel Browne, Land Development Corporation

The Larrakia Development Corporation was set up in 2002 and started with the development of Darla sub-division. It was vertically integrated with a turf farm and other subsidiaries. We won HIA awards, but there were also some serious failures. We have gone through a complete overhaul. We are the only Larrakia company with a Larrakia Board and management team. A lot of what we have done is in the past. We are involved with the Ichthys project. We have a joint venture with Compass running the Howard Springs Workers Village. We have had the Larrakia Trade Training Centre since 2011. They are all good things but for us, there are other opportunities.

We have been generating profits to capture what the LDC was originally set up for which was to play a lead role on the Cox Peninsula. Kenbi is the longest-running land claim in Australian history. The claim was decided in 1979 by Justice Grey in favour of returning the land to Larrakia interests in 2000. We are still waiting for settlement. There was a large detriment list. One is a Territory issue and the other was an Australian Government one.

It is a unique opportunity for any traditional owner group which holds land in a capital city. We can turn Darwin into a true harbour city. There is close negotiation with the NLC and NT Government about how the land will be returned to Larrakia interests. There will be a significant portion of the northern aspect of the Peninsula returned as Territory freehold.

The LDC has been at the fore of being responsible for the development of Cox Peninsula, which is 200 square kilometres. The original allotment of land will go to the LDC. It's a lazy plan covering the area that's already been surveyed. It would fit into Darwin CBD and inner suburbs two and a half times. It will take a lot of planning. We are talking to the CE of the Department of Lands and Planning. We understand it will take a few years before the first sod is turned. We will be getting roads, parks and ratepayers. One of the lessons we have learnt from Darla is that it's a good story while lots are being sold but then that's it. So the board has taken a longer-term view.

- There will be more commercial and industrial areas which the LDC will lease and not sell. It has to be land sales for people who want to live out there.
- The main issues for us will be water and electricity. The water table on the Cox Peninsula is not like the rural area. One idea is a suggestion to pipe water across the harbour. I don't know about the mechanics but there is only so much water you could pipe.
- Eventually services will need to make their own way out to the Cox Peninsula. The Larrakia will have a direct say on our own country, unlike we did on this side of the harbour.
- We have a habit now of making something out of nothing so we are looking forward to being able to present to the market residential and other land use opportunities.
- For a Larrakia person, born and bred, I always know that there was this land claim across the harbour, I knew there would come a day where our people would reach a critical mass and use our own capacity to chase and challenge those opportunities.
- We have had some sacred sites bulldozed (in Darwin) but we have had opportunities and mainstream schooling and health. Which means we have professionals who are capable of pushing the Larrakia agenda.
- It looks promising but we need to work with the Government to get this exciting project up.

Centrefarm (Lindy Andren)

Centrefarm is an Aboriginal-owned, not-for-profit economic development consultancy established to help traditional owners develop their land into a commercial asset. It is hard work but we hope the time is approaching where the vision is realised.

We were established after a strategic study by the CLC in 2000 to help take Aboriginal land and do something with it as an asset through at-scale commercial activity. Aboriginal people were getting their land back and wanted to do something with it so they could stay on their land to take part in the mainstream economy. So we were born out of a grassroots push from traditional owners.

Since 2011 we have been working with the NLC as Top End Farms. Aboriginal people, as has often been said, are 'land rich and dirt poor' because most land is greenfield sites.

- We need to develop the human capital in parallel with development of the land.
- Our main focus is primary industry. We started with horticulture and still have a strong primary industry focus. Aboriginal land does have significant and diverse commercial potential.
- The Department of Land Resource Management is looking at land further away from the central corridor to develop a better understanding of the water and soil resources which has added to our understanding of the opportunities.
- The social and economic costs of maintaining the status quo is greater than the costs of addressing them.
- This is cost of productivity vs the cost of remedial action, with health and putting money into prisons.
- Economic development is the development of human capital.

The key issues are tenure, infrastructure, funding and process.

Tenure

The Ali Curung development was established eight years ago. In the 1960s and 70s, the government ran a market garden and piggery. The older people remembered this as a positive model for the future of their land trust and approached the CLC. In 2008 an asset company was formed which is owned by the traditional owners and residents. There are three Section 19 leases carved out of the land trust that allow for parcels of land to be leased out. Centrefarm engaged a commercial farmer to operate a 96-hectare melon farm on one of the leases and established a training centre. A borefield was established with money from the Aboriginal Benefits Account. We are also looking at chia.

We have been working over the past four years to learn from the traditional owners and increase their understanding of the commercial process, ie developing human capital in parallel, which leads to stronger decision-making

The issue was that the farmer couldn't expand because he couldn't borrow against the sub-lease. Agreement was reached to borrow against the head lease. The bank considers the length of the head lease constitutes sufficient tenure to borrow against.

1. It's a new interpretation of the *Lands Rights Act*.
2. It has implications for 52% of the Territory.

Funding

While there is interest in expanding into the Territory, no one can afford the basic infrastructure to develop the Territory's greenfield sites (borefield, packing shed, cool chain, housing, transport, roads, power).

- grant funds tend to be risk averse (Aboriginal Benefits Account, Indigenous Land Corporation, Indigenous Business Australia) and not commercial;
- the land owners have no equity to approach commercial lenders;
- developing basic infrastructure makes the business model unviable for operators.

We have been working on this for 18 months. How can we attract public and private investment in a way that's commercially attractive?

We are at the early stages of working that out with the NAB. The model uses public funds to leverage private investment and is designed to offer commercial returns as well as paying back the original government funds.

Where to next?

- a whole-of-government response that streamlines the costly, complex and time-consuming process
- embedding strategic partnerships as the key to successful long-term economic development
- making the knowledge available through an information hub: who to talk to, where to go.

A whole-of-government response must go hand in hand with a comprehensive grasp of all the elements needed for success, from funding of physical infrastructure to the systematic support for human capital development.

WORKSHOPS

1. Feedback from the discussion groups

The groups were provided with maps and asked to consider the following questions:

- what are the potential economic development opportunities in your region (take in the whole region, including across borders into Queensland and Western Australia)
- what infrastructure (transport, energy, water) would unlock these developments by linking them up or improving their economics

- what is the supporting community infrastructure that needs to be in place to facilitate economic activity
- what social and economic development might this be a catalyst for (eg unlocking other projects, providing social benefits for communities)
- who is most likely to pay for this infrastructure, what is the business case
- are there clusters of activities that might become possible with infrastructure
- what barriers, opportunities or issues need to be considered?

Group One

- A new city on the east coast of the Territory where we could transfer the capital city.
- There is the potential for minerals, oil, gas, agribusiness and a more attractive climate for tourism.
- Infrastructure needed would be roads, power and water, a need to upgrade the existing ports because they wouldn't be able to handle the existing cargo.
- Community infrastructure needed: everything. And there's a range of smaller communities that would require upgraded infrastructure.
- The benefits are a sustainable economy and social benefits.
- Lots of government departments go out and train people for various projects. Once houses are built, they are out of a job.
- Who will pay? Superannuation funds, there is potential for BOOT (build own operate and transfer back) and Asian investors
- The collateral is that it's resource rich.
- You would have to get community agreement because they own the land.

Group Two

- most of the opportunities would come from minerals, oil and gas
- also geothermal, solar, tidal power
- sectors are agriculture, aquaculture, horticulture and pastoral leases
- where are the agricultural precincts and opportunities for forestry and aquaculture on the Tiwis
- roads are the Sandover and Buntine
- upgrade of the Tanami that would link us to WA and minerals deposits
- rail from Mt Isa to Tennant Creek to link us to the East
- cargo and trade
- gas pipeline to Moomba would connect us to the national gas grid
- renewable energy in remote communities
- investment: improvements to the port and around the bulk minerals loading
- who would pay? PPPs, common user elements, foreign capital would be required.

Group Three

- mining, agriculture, education (international and Indigenous), defence (Australian and US Marines, tourism, Darwin as a logistical hub
- proximity to Asia, being a development hub, eg for nearby countries, emergency response
- infrastructure needed: telecommunications and roads are primary, mobile coverage in the regions
- port for the logistics hub, niche products so need good storage at airports so it can go to market
- funding: ABA (Aboriginal Benefits Account) - being used to fund other road projects in the NT, developer contributions, excise on fuel to pay, land tax annually to free up land banking.

Group Four

- renewable energy, solar, wind, water
- rail links east and west – Katherine to Kununurra
- If there was two, which would be more important
- Darwin – fuel bunkering, doing the same as the Tiwis
- opportunities to establish centre of excellence
- gas pipeline
- transport hub for road trains in Litchfield or Coomalie
- how to unlock: affordable land, access to gas rather than sending it all away, reliable technology across the Territory.

Group Five

- community infrastructure: access to water is fundamental
- sustainable energy
- agricultural productivity and dispersal of production
- logistics and productivity question
- priority roads:
 - significant opportunities to the west, including agriculture and tourism, cattle roads
 - Daly River bridge: what are the opportunities from that
 - unrealised economic opportunities in Kakadu, understanding the aspirations of traditional owners
 - strong view that Maningrida and Wadeye are fundamental hubs for economic opportunities
 - roads = access.

Who will pay?

- maybe it will be 30 years before the right infrastructure is identified
- how do we best capitalise on the return from the outcome
- how do you get investors other than the Australian Government?