



# Ecological Sustainability through Regional Planning

## The Potential of the FNQ2025 Regional Plan

The Cairns and Far North Environment Centre Inc.

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How can we manage something unless we have something to aim for, and to measure against?





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## **About CAFNEC.....**

CAFNEC is Far North Queensland's peak environmental organisation, who seeks to support the community to value the natural environment through conservation and ecological sustainability. For nearly 30 years CAFNEC has campaigned for the protection of our regions' outstanding environmental heritage, from Cape York to Cardwell, from the Great Barrier Reef to the Gulf of Carpentaria. The battle to save the Wet Tropics Rainforests from logging was an initial campaign. CAFNEC submits that flora; fauna, soils and landscapes are valuable and not free commons to be carelessly consumed.

CAFNEC is a not for profit, community organisation, working with and for the community of FNQ. We rely heavily on the support of the local community in order to fund our work. CAFNEC's primary activities include environmental advocacy, campaigning and lobbying; and community education and awareness raising.

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## Essentials for Success

**CAFNEC believes the inclusion of the following Statutory Components to be essential in order to bring regional planning into line with the objective of ecologically sustainable development.....**

**An integrated habitat network through out the region, protected by statutory environmental overlays which will be represented in all the local government planning schemes.**

**Mixed use buffers around protected areas in which only development and uses which are compatible with conservation will be permitted.**

**Sustainability Indicators, Targets and Thresholds which are monitored continuously and which trigger decisive intervention and remedial action when breached.**

**New housing estates and master planned communities must be serviced by employment centres and community services which are accessible to residents via public and active transport.**

## Introduction

Far North Queensland (FNQ) is renowned for its outstanding natural environment. The mangrove forests of the coastal plains rise steeply into the tropical rainforests of the Great Dividing Range, which then plateau out into the rich volcanic soils of the Atherton Tablelands, before stretching westward to the dry savannah woodlands. Offshore lays a marine wonderland. Our region is so unique that it has twice attracted World Heritage status; for the Great Barrier Reef and for the Wet Tropical rainforests.

As a result, FNQ is better represented with environmental agencies, personnel and areas within protected estate than other regions in Australia comparable in size. Despite this, one aspect of how we manage the environment of FNQ is working counter to ecological sustainability. This is the form and rate of development in this region, and how we manage urban growth within our unique and delicate natural environment. By permitting and often encouraging an unsustainable rate of development, frequently in inappropriate locations and of inappropriate form, this aspect of environmental management undermines the efforts of scores of other environmental initiatives, investment and ecological gains.

The FNQ2025 Regional Plan presents an opportunity to address this problem on a regional level. Through this Plan we could see a departure from the old trend planning which essentially encouraged urban sprawl to spread further and further into open space, and which was heavily subsidised through infrastructure provision like major road upgrades and new highways.





FNQ 2025 is the first statutory regional land use plan in our region. Whilst previous regional plans such as FNQ 2010 exist, these were advisory plans only, as opposed to FNQ2025 which will have regulatory powers. It will sit between the QLD Integrated Planning Act (1997) or IPA, and local government planning schemes in the hierarchy of relevant legislation. If there is conflict between the Regional Plan and planning schemes then the Regional Plan will prevail.

**There are three things which the Regional Plan will directly influence...**

- 1. Urban footprint**
- 2. Infrastructure Allocation**
- 3. Some aspects of development assessment**

The urban footprint is a state mandated line around designated urban areas which will contain residential areas within it. Such a policy is important to halt the relentless advance of sprawl into rural and natural areas. In general CAFNEC supports such a policy instrument. However which areas are and are not included within the urban footprint will be critically important as to whether this Regional Plan will be successful in progressing sustainability.

Infrastructure allocations will also greatly influence the Plan's environmental performance. If the Plan devotes all its infrastructure dollars to the construction of new roads, it will send a clear message that the Plan seeks sustainability in rhetoric only. CAFNEC strongly argues that infrastructure investment must be directed towards upgrading the region's inadequate public transport system.

The Regional Plan can also influence aspects of development assessment - for example it can introduce the "prohibited" status where local planning schemes cannot. CAFNEC believes that this may address the lack of regulation and prescription embodied in IPA (1997) which has led to ad hoc development in our region.

Commitment, leadership and innovative policies will be required to turn the ship of unsustainable development around. CAFNEC believes that such policies do exist and are in practice in other parts of Australia and the world. They include the use and development of viable sustainability indicators, the protection of strategic corridors, as well as investment in public transport on a regional level and promoting compact, mixed use urban form. They also include a discontinuation of current trends which are now recognised to be unsustainable, such as building new housing estates on the peri urban fringe, building new highways, freeways and ring roads, and the creation of single use commuter dormitory suburbs. Through pursuing policy objectives such as these, FNQ2025 can be a vehicle for genuinely progressing towards achieving long term ecological sustainability for the Far North Queensland region.

In the wider context of climate change impacts -to which our region are particularly exposed- and the impending global problem of peak oil; regional sustainability must be taken much more seriously than it ever has before. Will FNQ 2025 be a critical part of the solution?

...we can no longer afford to postpone ecological sustainability as a lesser priority, we must give it its primacy as the central objective of any land use planning policy instrument.





## Integrated Habitat Network

**Identified wildlife corridors must be protected through the 2025 Regional Plan.** Matrixes of wildlife corridors that link existing protected areas are essential if FNQ is to retain the diversity and viability of our wildlife. “Environmental Overlays”, should identify and protect identified habitat networks across council boundaries. This system is commonly used on the local level, however unlike local planning overlays; this Regional Plan can provide region-wide statutory protection. An Environmental Overlay should ensure that no intensification of land-use occurs within the corridor and adjacent areas have development that will not heavily impact the corridor function.

Far North Queensland is fortunate to have so many outstanding natural areas within protected area estates. However these areas are often not located throughout the entire region and thus cannot perpetuate natural ecological processes. Often, local conservation areas are selected either for aesthetic or recreational qualities, or because they contain little value in terms of extractable resources. As scientific rigour was absent from many of these decisions, park boundaries do not conform to ecological boundaries and many lesser known regional ecosystems are under represented within the local protected area estate.

The FNQ2025 Regional Plan can address this fragmentation by creating an Integrated Habitat Network throughout the regional landscape which is protected through statutory environmental overlays.

This is particularly critical to wide ranging animals like the Southern Cassowary. The home range of a single cassowary exceeds the size of most currently established National Parks, meaning that without linkages between parks their survival is very uncertain.

Single species conservation strategies, such as those embodied by the federal EPBC Act, are understood to be not as effective as habitat conservation strategies, and are only really useful to intervene in the threatened extinction of a single species. However for endangered species to be truly protected, a region wide integrated habitat network will be crucial.

There are 6 land zones and 105 regional ecosystems in Far North Queensland. All of these land zones and ecosystems should ideally

### Key Integrated Habitat Outcomes:

- 1. Design and implement an integrated habitat network within the regional plan, which is protected by statutory provisions**
- 2. Develop a list of key species/ biodiversity indicators for each planning area within the region**
- 3. Ensure that key species’ core habitat is maintained and enhanced through planning processes.**
- 4. Provide a mixed use area for recreation (buffer and other parks) that minimizes impacts to wildlife**
- 5. Link core habitat across urban areas with larger intact protected areas.**
- 6. Establish and implement a monitoring program for key species**

be protected within a continuous spectrum, extending from the highlands to coastal zones, and from the rainforests to the savannah.

In the USA, conservationists and biologists developed what they refer to as the “Wildlands Recovery Network”. This was a model which was developed to strategically plan for reintegration of fragmented conservation areas.





**The main principles of this model were the following components:**

- 1. Core areas**
- 2. Mixed use buffers**
- 3. Corridors.**

Implementing these would involve firstly identifying high value biodiversity “hot spots”- or “core areas”. The hot spots which are not already in protected area reserves should be targeted for inclusion in the network.

The “mixed use buffer” zone around protected areas would be awarded a far greater level of protection than other residential areas in respect to their conservation values. Whilst these areas may still be made available for development, permissible uses must be carefully selected for their compatibility with conservation outcomes. Whilst rural residential lots may represent an inefficient use of land in other contexts, within the buffers zones these may be appropriate if subject to environmental covenants such as controls on exotic plantings, chemical use and domestic animals. The mixed use buffer adjacent to parks and reserves also presents a good opportunity for low impact eco-tourism ventures. These buffers zones will be particularly valuable for protecting the Daintree area and other relatively undeveloped areas in the region retaining significant natural values.

The third component concerns “corridors” which link fragmented protected areas together to accommodate ecological function and wildlife movement throughout the whole of the regional landscape. Initial investigation of strategic environmental corridors has been

undertaken by the EPA. This could form the base data for FNQ2025 to protect such corridors under environmental overlays which are made law by the Plan’s statutory provisions.

Climate change presents us with a further reason for retaining wildlife corridors - the response of plants and animals to climate change is to shift zones, usually to higher ground. Therefore, it is critically important to maintain corridors linking the coast to the ranges, through the populated areas in between, to ensure that our native plants and animals have as greater chance of survival in the face of changing climatic conditions. Overseas regions which have successfully implemented such systems include the Portland region, Oregon, USA and Greater Vancouver in Canada. Both regions apply comprehensive regional planning to maintain wildlife connectivity in the face of increasing human populations and development pressures, through “e-zones” which are essentially environmental overlays.

Integration of private and public lands for conservation will be crucial for wildlife preservation and conservation in the region - it is also crucial that this is considered in the face of future population growth and associated development pressures in FNQ.



Effective wildlife corridors are vital if Mission Beach Cassowaries are to survive  
– Photo: Liz Gallie



The Southern Cassowary - facing extinction through habitat loss and fragmentation





## Sustainability Indicators

Many planning policies and strategies claim that sustainability is a core objective. However, to substantiate this intent, such policies must develop means of tracking progress towards this end. Indicators provide a way of doing this.

Essentially an indicator is a measure, against which progress towards a stated goal can be monitored. The lead political indicator is the GDP, which is still used today by many governments to measure economic success, although there is increasing recognition of this measure's flaws and limitations.

Indicators are also an important way of measuring the sustainability of land use and development approaches. Through the collation of data on key environmental indexes and continual monitoring and evaluation of these, we can begin to see how effective the management of environmental problems may be, and thus better inform consequent decision making.

Whilst such reporting systems are in operation through the State of the Environment and the State of the Region systems, these are primarily monitoring and data evaluation systems, and often do not directly influence management directives.

If indicators are to inform a desired ecologically sustainable outcome, then we must state what our strategy is, decide what a realistic target is in working toward this strategy, and then develop management tools with clear indicators embedded within them which measure our progress towards those goals. Without such indicators, policy is simply incomplete.

Sustainability Indicators and Targets must be in place alongside the plan's Desired Regional Outcomes (DROs). DROs are broad statements of planning intent, however if unaccompanied by indicator sets they often remain in the plan document only and are not translated to on the ground outcomes.

How can we manage something unless we have something to aim for, and to measure against?

### Key Sustainability Indicator outcomes:

1. **Develop Sustainability Indicators which are aligned to each of the Desired Regional Outcomes.**
2. **Fund the ongoing evaluation and monitoring of these indicators.**
3. **Have set targets and triggers within each Sustainability Indicator.**
4. **Design suitable management interventions if thresholds are approached or reached.**

Indicators with a spatial planning dimension will be needed for FNQ2025, as it is essentially a regional spacial plan. These may include indicators in the following areas....

- Fragmentation of protected conservation areas.
- Wildlife connectivity
- Amount of remnant vegetation lost to development
- Net regional water consumption
- Net regional vehicle kilometres.
- Urban densities

Meaningful targets and thresholds are essential to effective indicators as these will trigger the need for evaluation and remediation. The SEQ Regional Plan mentions targets, but they fail to be linked to any mechanism to achieving them and are often irrelevant to the scope of regional planning.

Indicators and targets are essential. How can we manage something unless we have something to aim for, and to measure against? The fields of health and economics and continually referring to indicators and adjusting their management approaches accordingly, and CAFNEC strongly purports that the fields of planning and development deserve the same amount of policy rigour.





## Appropriate Urban Growth

**It is highly probable that FNQ will experience significant population growth in the coming decades, with government projections expecting 2% per annum growth.** It is critically important that we look at how we are going to cater for such growth in a way that enhances the existing character of the region and preserves our unique natural environments.

Appropriate development should be focused on existing towns and neighbourhood centres where there are already services, employment and infrastructure to cater for the uptake of new residents. The majority of the regional population should be clustered around these existing centres.

Similarly smaller outlying housing estates foster car dependant lifestyles, and require big investments into road and service infrastructure, leading to higher carbon emissions. This fosters a dangerous dependency on fossil fuels; the supply of which is by no means secure into the future, and reinforces a culture of energy inefficiency, in a country which is already one of the highest per capita green house gas emitters in the world.

CAFNEC favours a polycentric model for regional growth. This approach focuses new development and housing estates around the existing regional centres of Cairns, Mossman, Mareeba, Atherton and Innisfail. Development should occur in a way which takes into account potential climate change impacts, enhances the local character and cultural fabric of these centres, reinvigorates local economies, and which preserves natural environments and wildlife populations.

Furthermore, new development should move away from the status quo of suburban sprawl

### Key Appropriate Urban Growth Outcomes:

- 1. Develop policies and statutory provisions under FNQ2025 which preclude the development of any new commuter satellite suburbs and focus new development on existing regional centres.**
- 2. Encourage denser, mixed use centres within urban areas to cater for the uptake of new residents.**

which has characterized urban growth in Australia for the past half a century. Innovative new ways of designing our suburbs that reduce car dependence, energy consumption and retain room for wildlife are essential if we are to sustain a growing population whilst maintaining our biodiversity, lifestyle and ability to produce food locally.

## Myola Today



## Suburbia Tomorrow?



The development industry is continuously pressuring government to release more and more land at the urban fringe, as a solution to housing affordability. However, the solutions to equitable housing affordability lie in creating denser mixed use suburbs closer to services so that residents are not burdened with huge transport costs down the track.

### It's NOT too late to **SAVE MYOLA**

Community backlash to inappropriate urban expansion







## Regional Coordination of Public Transport

Public Transport provision in Far North Queensland is currently very poor. Passenger rail is almost non-existent, and a small number of private bus companies compete for a trickle of suburban commuters without cars. In smaller centres such as Yungaburra and Malanda, there is not a single bus to serve these rural communities. Yet in the face of climate change and peak oil, it is clear that public transport provides a real and effective solution to reducing our net energy consumption.

There is compelling evidence to indicate that public transport is best coordinated at a regional level. Therefore, investment into public transport should be regional also. This makes the FNQ2025 Regional Plan a perfect opportunity to address the current poor standard of public transport in Cairns and the surrounding region.

Paul Mees (2000) notes that “all genuinely successful urban public transport systems - for example Zurich, Munich, Toronto or Vancouver - share a common feature, namely central, regional planning by a public agency”.

Peter Newman argues that 4 or 5% of city wealth is spent on transport in cities like Zurich, Copenhagen and Stockholm which spend heavily on public transport. In cities such as Perth, Los Angeles and Phoenix, residents spend 17% of their personal wealth on private transport.

For key regional centres like Cairns to improve their public transport facilities and to gain benefits from potentially available savings, change to a centralized system of funding is required. Regional communities would elect to participate in a centrally administered transport system under such an approach. Potentially the best model is the creation of regional planning agencies, open and responsive to local initiatives, opportunities and demands.

If cities such as Cairns are to improve the uptake of public transport we need to proactively create an efficient and user friendly system and spend the money to create it, rather than wait for incremental demand increases.

Climate Change and Peak Oil demand our immediate action and CAFNEC proposes a

### Key Public Transport Outcomes:

1. **Develop a regional plan for investment into public transport.**
2. **Establish a regional coordination authority for all public transport services.**
3. **Do not invest in major new roads to cater for population expansion.**

public transport target of 40% by 2025 rather than the 20% by 2036 which the state government currently envisages.

For such an agency to succeed two further requirements must be met. Firstly, the regional planning agency must be made more responsive to regional community input. Local debate on planning options needs to be fostered and the community needs to be involved in planning – particularly in the formulation of major policy directions. Secondly, rationalization of the funds currently allocated for road and other transport provisions would be required. Only if savings made possible by an efficient public transport system can be retained in the region for the benefit of the community, can residents be expected to forgo their current dependence on private motor vehicle use. Ultimately this will have consequences outside the transport arena, for example in decreasing health costs.

The future is Public Transport, and the time to invest is now. FNQ2025 will be backed up by infrastructure package which can deliver the public transport system which the region deserves and take the lead to supply quality public transport to the new residents and neighbourhoods of the future.

### Why plan regionally?

**Regional planning has emerged as a major trend in land use planning theory and**





**practice in the last few decades.** The United States, United Kingdom, Europe, Asia and Africa have all focused on a regional scope to gain certain planning outcomes.

There are several rationales behind planning on a regional level. The region has been recognized as a key strategic unit for increasing economic competitiveness. Also, planning regionally is to address social disadvantage as access to opportunities which often play themselves out unevenly within regions. Comprehensive social and economic development plans have yet to be undertaken in FNQ, but will need to be developed if a triple bottom line approach to regional planning is undertaken.

However the key rationale behind regional planning is sustainability. As a land use plan and an urban growth strategy, the FNQ2025 Regional Plan falls into this category. Due to their trans-boundary nature, many environmental planning issues cannot be adequately addressed at a local council level. Urban sprawl often arises as a result of the fragmentation, duplication and lack of coordination between local governments, who often compete to attract development as a source of revenue through increasing their rate base - compounding unsustainable peri urban growth.

## Environmental Benefits of a Regional Approach

**Every city and town should be planned in relation to its region.** This approach has two environmental benefits - it facilitates the protection of environmental assets which enhance the quality of life of urban inhabitants, such as air sheds and aquifers, and it allows us to comprehensively manage the city's adverse impacts, or ecological footprint, on its surrounding region.

Arguably, the most valuable benefit of a regional approach to land use planning is simply to limit suburban sprawl. By drawing a state mandated limit to urban sprawl around existing urban areas, the outward spread of suburbs over more and more agricultural land and bush is curtailed. Instead, new development is directed into re-investing and redeveloping existing urban hubs and neighborhoods.

Regional planning is an important instrument in addressing the fragmentation and isolation of natural areas. Traditionally, conservation efforts

have focused on cordoning off wild areas within the protected estate, with little regard to how these areas connect to each other. Through comprehensive regional planning we can address this, by protecting and rehabilitating strategic corridors and buffers which allow species to migrate and environmental flows to function without impediment. Through regional planning, a landscape scale ecological approach can be adopted, which involves integrating spatial relationships and functional interactions over large areas. This can protect ecological mosaics including habitat from being further fragmented by poorly planned and environmentally insensitive development.

Green spaces, scenic amenity and corridors need to be integrated into planning decisions throughout the region to maintain biological diversity and ecosystem health. Furthermore, statutory provisions must be developed through the framework of regional planning which ensure that these natural assets, so vital to our own health and quality of life, are not undermined by inappropriate types of development.

When assessing developments, council planners have often not adequately considered many aspects of environmental planning, such as protection of biodiversity and good quality agricultural land, scenic landscape amenity and important cultural heritage. Regional planning is highly suited to recognise and protect these values and can thus complement the development assessment process at a local level.

## The future of the Far North...

**The FNQ 2025 Regional Plan can be a vehicle to make significant progress towards ecological sustainability in our region, and represent a departure from the lax and ad hoc approach to development control which we have seen in the past.** If the policy mechanisms which we have discussed in this document are embraced by the State government, as they have in other regions, then our built environment can begin to become more responsive to the natural environment within which it inhabits. At a time when we are projecting rapid population increases, it is critical that this regional planning be done now. For the future of the Far North, we can no longer afford to postpone ecological sustainability as a lesser priority, we must give it its primacy as the central objective of any land use planning policy instrument.





## Lessons from SEQ & FNQ 2010 Regional Plans

**Whilst the FNQ 2025 Regional Plan claims to be an attempt to contain sprawl, FNQ2010 was an attempt to cater to it. The assumptions underpinning FNQ2010 was that new urban growth and migration into the region could best be catered to through creating car dependant, commuter suburbs separated from existing employment centres, and to subsidise these through massive injections of capital into major road upgrades. Whilst FNQ2010 was only an advisory document and its proposals have never been fully realised, this policy has resulted in millions of dollars being spent on feasibility studies into roads and satellite suburbs, which are clearly unsustainable in the light of climate change and peak oil.**

**The South East Queensland (SEQ) Regional Plan was an attempt to contain sprawl, however it did not go as far towards this end as it could have, and there were some major omissions in the base data used to develop this regional plan.**

**For example...**

**The SEQ Regional Plan did not attempt to set limits to growth, it only sought to “manage growth”, thus it stayed firmly within the planning tradition of “predict and provide”.**

**A report into the ecological and resource carrying capacity of the region in major drainage catchments and other sub regional areas was not undertaken in preparation for the Plan.**

**The plan did not give nature conservation status above other regional priority uses in critical habitat areas, and some identified conservation areas clashed with other uses- this usually results in these areas being lost to development.**

**The urban footprint was too large and should be reduced in size to cater for only 25 years growth.**

**Sustainability Indicators were included in the Plan under the State of the Region system, but needed to be directly linked critical environmental and liveability thresholds, and policy objectives.**

**A number of the Plan’s transport and infrastructure policies did not support ESD and are likely to work against the Plan’s “preferred pattern of settlement”.**





## Abbreviations

<b>CAFNEC</b>	<b>Cairns and Far North Environment Centre</b>
<b>DRO</b>	<b>Desired Regional Outcome</b>
<b>FNQ</b>	<b>Far North Queensland</b>
<b>IPA</b>	<b>Integrated Planning Act</b>
<b>ESD</b>	<b>Ecologically Sustainable Development</b>
<b>FNQ 2010</b>	<b>Far North Queensland 2010 Regional Planning Project</b>
<b>NRM</b>	<b>Natural Resource Management</b>
<b>SEQ</b>	<b>South East Queensland</b>

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CAFNEC's FNQ 2025 community engagement is part of the Queensland Government's Blueprint for the Bush, a 10 year plan to build a sustainable, livable, prosperous rural Queensland.





*We can no longer...allow the uncontrolled development of our prime remaining natural or agricultural lands. We must first explore and maximize the possibilities of renewal and redevelopment. We must reclaim, redefine, reuse, and often reshape our obsolescent or depleted urban, suburban and rural properties. We can and must create a whole new re-formed landscape within the grand topographical setting of protected mountain slopes, river basins, shores, forest and farmland. Implicit in long range planning is the concept of sustainable development...our planning must be the formulation of strategies for restraint, wise use, replenishment and restoration... (In terms of) land and land use management, it soon leads to the realization that urban sprawl and scatteration must be curbed and reversed -replaced with concentrated and interconnected centers of human activity within protected and productive open space surrounds. It demands, in short, comprehensive regional planning.*

*John Ormsbee Simmonds; 2004*

