Plans are Useless, but Planning is Essential

A threat and a promise for development in Northern Australia



Title image: Photo showing irrigated chickpea seed production in the Ord Irrigation Area of Western Australia. (from https://www.agric.wa.gov.au/pulses/western-australian-pulse-industry)

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Keywords

Natural Resource Management, Regional NRM Plans, Northern development, inter-subjective reality, consensual decision-making

Abstract

Development over the next decade in northern Australia will proceed along the un-predictable intersection of two complex adaptive systems: the anthropic (social, economic) and the bio-physical/geophysical. These two domains are tightly linked and profoundly indeterminate. If we are to improve our capacity to nudge the future toward consensual outcomes, we will need tools suited for that purpose, and a culture pattern that embraces the baked-in complexity of our human and non-human environments.

Planning is a process-focussed form of social ritual and narrative construction that is especially suited to the challenges and opportunities of the north. The prevalent narratives that define our relationship with the land are both insufficient for enduring prosperity and captive to narrow ideologies. This paper argues for a new posture, a re-freshed commitment to the processes of civil society in order to find the best

ways forward in the north. A revival of planning culture promises to expand the capacity for resilience at the scale of community, local economy, and watershed.

Development will happen on, around, and through the small communities and sparse landscapes of the north. This region is highly sensitive to the presence or absence of cooperation networks and is exposed, for better and worse, to powerful external forces.

Australia's Regional Natural Resource Management (NRM) network is presented as an appropriate structure in which the specific processes of planning can be effectively realised. I will show that Regional NRM Plans are evidence of a remarkable social process that opens new understandings of ourselves and the land we are part of. A set of standards, the Seven Signs of Planning, are proposed as a method for consistently evaluating the depth and quality of planning processes.

Regional NRM and its technology of planning can provide a foundation on which to build a culture of profitable and consensual development in north Australia.

Conflict of interest disclosure:

This manuscript promotes the value of a robust regional NRM network. The author is Chair of a regional NRM organisation, Northern Gulf Resource Management Group. This paper is a submission to the Rangelands Journal by the author acting in their personal capacity. The views presented here are not necessarily those of Northern Gulf Resource Management Group.

Author's preview

Deciding about northern Australia: here's a plan

Northern Australia is being shaped by a full spectrum of human decisions. Individuals, groups, agencies, locals, interlopers, dreamers, visitors, and far distant relations….all of these, all of us, are making decisions independently, collaboratively, antagonistically, and cooperatively. Project developers approach northern Australia with one basic requirement: to serve the laws of capital return. Under this discipline, development will proceed where there is a reasonable expectation that economic returns can be reliably achieved at a rate which exceeds erosion of the underlying resource, typically natural and social capital. However obvious this assertion may be, it leaves open the most important problem: how to engage with the uncertainty arising from irreducible complexity. In other words, how can we make development plans for an unforeseeable future?

Our decisions about development in northern Australia resolve toward two different propositions:

1: by taking the right decisions, the best decisions, we will improve our chances of remaining viable in the future given what we know now; or

2: by affording a sufficient quantity and quality of attentive energy to how we make decisions, we will improve our capacity to thrive in an unpredictable future.

The "Plan" is the point

In the first proposition, focus is brought to the decision itself. The "right" decision leads to success, and the "wrong" decision leads to failure. But do we all agree on what constitutes success and failure? Is there a shared sense of context and progression? What pain do we consensually endure today in expectation of rewards tomorrow? In short, who gets to say what the "right decision" is?

There is plenty of contest here, especially when an immediate "win" is at stake. Special interests compete vigorously to tilt the table toward their own perspective. For example, Gina Rinehart continues to lament the red/green-tape preventing her from diverting a few hundred gigalitres of "uselessly wasted water" out of the Fitzroy River in Western Australia (Hancock Prospecting Group 2017). On the opposite side of the spectrum, the frontier is patrolled by single-issue specialists such as Animals Australia's Lyn White whose activism in the 2011 live export ban failed to consider the communities who would be forced to absorb the damage of a "principled position" (Lake 2013; Wagstaff 2016).

In this zero-sum landscape, politics is the grim art of negotiating (or coercing) an acceptable tally sheet between the winners and losers. The artefacts emerging from these encounters come in various formats over a range of spatial and temporal scales: agreements, contracts, memoranda, plans, etc. A small sampling relevant to negotiations for the north includes:

- Our North, Our Future: White Paper on Developing Northern Australia (Commonwealth 2015)
- Great Artesian Basin Strategic Management Plan (GABCC 2000)
- Wild Rivers legislation (revoked) (Rebgetz and Agius 2014) and Delbessie reforms (abandoned) (Phillips 2012)
- Mary River National Park Joint Management Plan ((NTPWS), Northern Territory Parks & Wildlife Service 2015)
- Recommendations of DRMAC - Daly River Management Advisory Committee (terminated) (Curtain 2013)
- Mandate for the North Australia Infrastructure Facility (Commonwealth Government 2016)
- Funding agreement for the CRC for Developing North Australia (commercial in confidence)
- Western Australia's Royalties for Regions Scheme (endangered) (de Garis *et al.* 2017)

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There is no shortage of plans for northern Australia. Indeed, the intensity of stakeholder engagement can lead to a sense of "consultation fatigue" (Lloyd *et al.* 2005). Planning can be conducted as if it were a tick-box exercise on the way to foregone conclusions. The stakeholders can be forgiven for their frustrations at such superficial efforts, when planning is used as a way for governments and agencies to avoid actually doing something useful (Fairfax 2018). While acknowledging these criticisms, I will make the case that when planning is done well, it is the most efficient strategy for navigating complexity and uncertainty. The Plans that arise from excellent planning can stand as valuable evidence of engagement with the "contested ideas, compromises, and trade-offs that influence decisions about the future of north Australia." (Dale 2014)

Plan for purpose

Reading through a good plan, we get the feeling that it is a roadmap into an actual future. The Plan offers a reassuring confidence in our ability to realise a desired outcome, guiding us closer to some aspirations and helping us avoid some perils. Project developers are particularly keen for plans that come closest to guaranteeing their pre-specified outcomes. We like to think that our plans are capable of ensuring skilful answers to questions like: will this dam be built; that port dredged; a cotton gin opened here; or those road networks upgraded? Will that legislation be changed; will oversight of that policy be funded; and who grants the social license to operate?

Given these expectations, do plans function as intended? Are project developers more likely to harvest returns on capital at an acceptable pace? Are we headed toward a better future in northern Australia because there are plans guiding our decisions? I would suggest that there's not much evidence in favour.

The iconic successes in northern Australia seem to have occurred in an era prior to, or unfettered by, anything as deliberate as Habermas' theory of communicative action and ethics driving the dynamics of public conversation. Sidney Kidman and the Duracks have not left much in the way of a program logic legacy (Durack 1959; Idriess 2013). The early miners and speculators clearly needed no guiding vision or integrated strategy for how to develop the north at landscape scale: it was simply a matter of discovering viable deposits and opening the next mine.

These pioneers and visionaries of the frontier made decisions that were, for the most part, profoundly unconcerned with unintended consequences. Some of this pragmatic "getting on with it" attitude can be forgiven. But that era of unconstrained short-term self-interest, if it ever truly existed, is well and truly over. The frontiering narrative, as it is imagined today, lacks a sober appreciation of complexity. The grand plan to open the north fails to admit the contingent limits of control. Economy and ecology are so tightly connected that modelling any given aspect of development in one domain implies effects throughout the entirety of both systems. This tight coupling over immensely complex dynamics gives rise to the wicked problems (Rittel and Webber 1973) confronting development in economically and ecologically brittle landscapes.

No land manager or project developer acts in isolation, taking risks that only affect their own ambitions. We cannot ignore, with any intellectual honesty, the intricate interdependencies of nature and culture that saturate the landscape. Every action comes laden with consequences, many of which merit careful consideration before land management decisions are taken. Nonetheless, nostalgia for the apparent freedom and simple virtue of the frontier is the closest many Australians come to a shared social narrative (Cameron 2002). As a cultural norm, the frontier is still invoked with the effect of justifying the primacy of individual liberty over common purpose (Locke 2017).

In the shape-shifting domain of the real world, however, our plans for the future usually amount to little more than a moment's pretence papered over an imaginary calendar: just another set of variables in a complex adaptive system (Kaisler and Madey 2009). The planner's contributions appear to be irrelevant

at best. The tone and substance of public discourse offers little assurance that plans, no matter how well considered and intended, are sufficiently useful to decision-makers in this context. The civic landscape remains as fractious and competitive as ever, with transactional negotiators dominating decisions made in the public sphere (Gilens and Page 2014) and hyperconcentrated financial wealth bending reality toward its own ends (Piketty 2014; Gray 2015). Many people have concluded that plans are useless (Cox 2018), and in an important sense, they are right.

Plans are worthless, but planning is everything. (Eisenhower 1957)

It is here that the second pathway toward decision-making finds its strength. As a five-star General and Cold War President, Eisenhower's frame of reference was military, but his insight could easily be seen through today's lens as an argument for the importance of resilience (Manyena *et al.* 2011; Allison-Napolitano 2014).

The future cannot be calculated when dealing with complex adaptive systems. This limit is amply demonstrated through encounters with astute military opponents (McChrystal *et al.* 2015), the stock market (Mauboussin 2002), or the communities and ecosystems of north Australia (Campbell 2006). Fixating on the imagined details of an infinitely contingent future will lead to dysfunctional rigidity. Eisenhower elaborated that "...more important than what is planned is that the planners become accustomed to working together on hard problems" (Hadley 2009). Healey(1999) confirms these benefits in her observation that "governance activity" generates social capital:

> *In a more subtle and dynamic interpretation of the social capital idea, Innes et al. (1994) illustrate how the building of relational bonds creates intellectual, social and political capital. The first develops knowledge resources; the second generates sufficient trust to enable knowledge and understanding to be shared; and the third enhances the capability to mobilize to act. Thus, governance activity is not merely constrained and shaped by the store of social capital, which has built up in a place. It actively develops it. (Wilson 1997; Healey 1998b).*

The accumulation of social capital was directly evaluated and verified by the Tropical Savannas CRC in their benchmarking of NRM plans (2006).

People and organisations involved in the act of planning deeply with one another will often encode their social capital gains in the formation of stories because that's one of the reliable strategies we use to negotiate complex environments (Sugiyama 2001). The stories that arise from these planning interactions will be far more authentic and useful than those forged from mono-chromatic narratives such as economic rationalism, monotheism, scientific reductionism, neo-colonialism, or deep-green ecologies (Katz *et al.* 2000).

Narrative technology (Dautenhahn 2001; Coeckelbergh and Reijers 2016) suggests that we can deliberately improve our ability to co-create generative stories about ourselves and our world (Dart and Davies 2003). Stories, particularly the "simplistic" slogans of the politician, tend to frustrate the classically-trained scientific mind. Yet it is precisely here, in this vague world of partisan argument and weaponised statistics, that we find evidence of a robust and proven mechanism for influencing the complexity of culture-making.

Planning as a social ritual

Good planning is consensual. The act of planning, in its proper form, cannot occur when the plannees are not speaking to one another. Planning cannot be easily faked: the process collapses in the presence of coercion. Ministers and magnates can proclaim Plans: they cannot proclaim planning.

Given that planning is essential, and it must be consensual, is it possible to "set the mood" so that high-quality planning is more likely to occur? Let's first consider how well cooperative activity has served us so far.

In his popular examination of what makes our species tick, Harari (2011) observes that our species exhibits an astonishing ability to invent, or co-create, forms of "reality" that don't exist, and yet which are persistent and precipitate considerable effect on "actual" reality. These cooperative efforts are called "inter-subjective" reality. There is immense power available to groups of people who are able to cooperate in this manner. If the form of cooperation itself is flexible and adaptive, the group will absorb this capacity as well.

The inter-subjective bubbles up at various scales, from national and species-wide stories about our world right through to versions of reality that are endemic to small villages or Reddit threads. Noting the moral hazards (Tilove 2015), it is nonetheless arguable that humans are capable of creating fit-for-purpose realities (Harari 2016). In this light, an inter-subjective coherence for north Australia could be taken as a practical goal. To make headway, we will want to review the relevant tools: emergence and ritual.

Emergence is a notion adopted by complex systems theory. In a given system, it is possible to observe complex phenomena arising (emerging) from the interactions of simpler components. There is no deterministic way to calculate specificity at any given point, despite the fact that a specific pattern is being expressed. Similarly, Indigenous ways of knowing country emerge from the proposition of a foundational wholeness, viewing country as an irreducible unity (Poroch *et al.* 2009; Berry 2010) that is stable over time, even though the specifics at any given date are unknowable. Is it possible to begin our cultural conversation again, guided by these perspectives, and find a way toward a more reliable accumulation of economic, social, and environmental capital?

Planning can be imagined as the deliberate activity that drives meaningful interactions between people, institutions, ecosystems, and capital markets. A set of simple rules, high levels of information exchange, lowered power differentials between participants, and an initial vision or goal: when these precursor conditions are established through the act of planning, it is possible that complex coherence can emerge. The formation and function of a purposeful group is the emergent property of deeply effective planning (McChrystal *et al.* 2015).

Planning can also be viewed through the lens of ritual. In a general sense, ritual describes cooperative acts that are repeated according to a set of rules, and whose purpose is understood to be transformational. Rituals are not merely recipes or instructions. Builders follow the instructions of their craft in order to construct a house whereas families, already engaged in the rituals of daily living, are necessary to transform that house into a home.

If planning is to be accepted as a social ritual, there is a question of which comes first: an activity that later becomes ritualised, or the deliberate construction of rituals that influence ordinary activity?

Collins (Cloutier 2011) asserts that ritual is the starting point of social transformation:

> *"While traditional views of ritual, commonly associated with anthropology, suggest that meaning and belief systems emerge from social structure and give rise to ritual, ritual theory based in micro-sociology suggests the opposite: that rituals give rise to beliefs and infuse symbols with meaning, which subsequently become manifest in social structure."*

It is the rituals of "homemaking", the repeated anticipations of a home that precipitate the activity of housebuilding. The obvious suggestion is that, if we so chose, we could be inventing rituals aimed toward improved resilience in ourselves and the landscape.

Our relationship with the environment (our home) will require transformation if we are to find a longer-term role for our species (Scheffer *et al.* 2017; Robins and Kanowski 2011; Lloyd *et al*. 2005). We will need purpose-built rituals emerging as ternary positions above the dichotomies of singular dogmas of religion, science, race, or economy. It could be quite productive for planners to consider their work through the lens of ritual and take more conscious steps to emphasise the psycho-social aspects of planning work.

With due respect for the challenges that will arise in a landscape of extreme political and power inequalities (McGuirk 2001), I believe that Regional NRM Plans are evidence of a remarkable social process that can foster new understandings of ourselves and the land we are part of. There's little doubt that we will need more inclusive and cohering narratives if we are to thrive in the uncertainties ahead.

NRM Regional Planning in focus

A central aim of this paper is to signal the potential lying fallow in the regional natural resource management (NRM) framework, and in particular its function as an institution of planning. Regional NRM Plans can be seen as evidence of a cooperative cultural norm in formation. The regional scale is arguably the most appropriate dimension for the north's communities who are so closely connected to natural resource activities.

"Northern Australia: A Contested Landscape" (Dale *et al.* 2017) contains a review of the failed attempts to govern and plan in northern Australia. These failures often resulted from weak local governance capacity and a dominance of special interests located in Perth, Darwin, Canberra, and Brisbane. The authors note that "...northern Australia is best described not just as a landscape of contested issues but as a landscape of contested governance."

Fig. 1 gives some insight to the governance landscape in which regional NRM is located. Note that this diagram does not attempt to map the equally complex arrangement of each domain the NRM sector touches, for example the network of Native Title holders and Indigenous land management entities is not shown.

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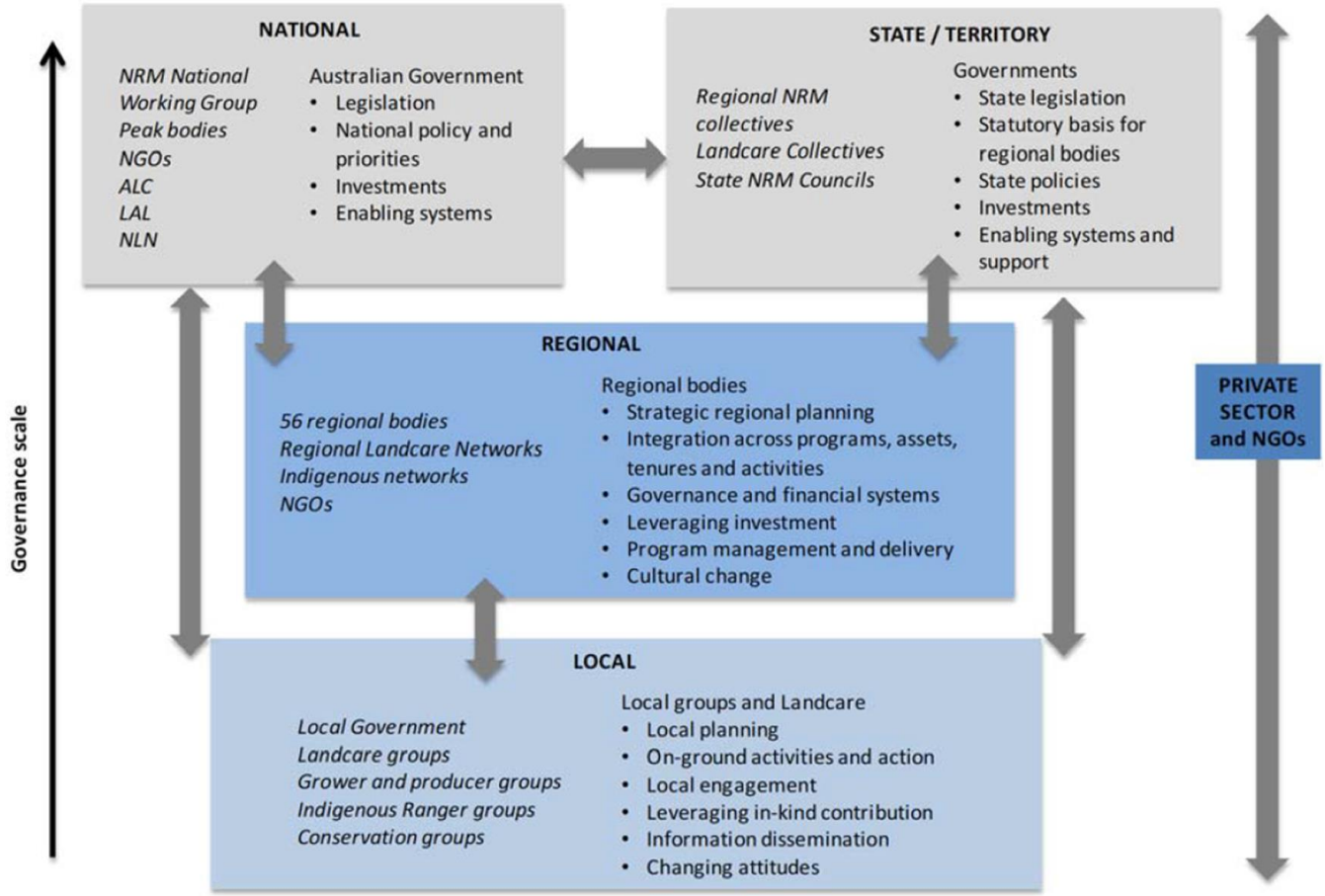


Fig. 1. Structure of NRM governance and networks in Australia (Healy *et al.* 2016)

Formalised NRM Plans

The funding guidelines of the second programme of the Natural Heritage Trust, NHT2, 2002-2007, required the production of comprehensive documents that combined scientific models and data with community aspirations in order to guide the investment of public funds. These formal Regional NRM Plans and Regional Investment Strategies (RIS) would be accredited, or signed off, at Ministerial level by the bilateral parties (Commonwealth and State).

This imposition came as a direct result of the Australian National Audit Office (ANAO) audit of the delivery of NHT1. The ANAO (2001) found significant shortcomings in the accounting for the investment of public funds. The clear message was that NRM delivery must be more explicitly managed and accountable. NRM Plans and the accompanying Regional Investment Strategies were mandated to serve that purpose.

Such a sweeping agenda was always going to be difficult to deliver. Nonetheless, the 56 NRM Regions had been given their marching orders: no Plan, no pay. Naturally enough, the primary focus of this rapid re-tooling effort was the Plan itself... what makes a good NRM Plan?

Dozens of regional staff took crash-courses in program logic and enormous debates arose around Resource Condition Targets, Management Action Targets, SMART goals, and the Most Significant Change technique (Dart and Davies 2003). An entire subdomain of “NRM knowledge brokers” blossomed, aiming to connect NRM staff and their stakeholders with relevant scientific and policy materials. Land & Water Australia produced some impressive work to leap across reductionist shortcomings with strategies informed by complex systems thinking (Campbell 2006). Drafting the initial

NRM Plans and their accompanying RIS documents proved to be exciting, excruciating, and laden with learnings.

Blueprint for a useful Plan

According to Senate testimony (Hansard 2004) the first editions of Regional NRM plans were to be assessed against the criteria which had been endorsed by the Natural Resource Management Ministerial Council (NRMMC) in May 2002. When these criteria were met the plan would be accredited and forwarded to relevant Ministers for signature. In summary, the accreditation criteria required that plans:

1. *cover the full range of natural resource management (NRM) issues;*
2. *are underpinned by scientific analysis of natural resource conditions, problems and priorities;*
3. *have effective involvement of all key stakeholders in plan development and implementation;*
4. *focus on addressing the underlying causes rather than symptoms of problems;*
5. *include strategies to implement agreed NRM policies to protect the natural resource base;*
6. *demonstrate consistency with other planning processes and legislative requirements applicable to the region;*
7. *set targets at the regional scale, consistent with the National Framework for NRM Standards and Targets;*
8. *identify strategic, prioritised and achievable actions to address the range of NRM issues and achieve the regional targets: this includes an evaluation of the wider social, economic and environmental impacts of such actions, and of any actions needed to address such impacts; and*
9. *provide for continuous development, monitoring, review and improvement of the plan.*

Looking back at this list one is impressed by the intelligent and insightful nature of the expectations. Hard evidence from observation and science was to be combined and prioritised across all NRM issues; the focus was to be on underlying causes, not just the symptoms; the entire community was to be engaged; the Plan needed to fit vertically and horizontally with other planning frameworks; and there needed to be an explicit mechanism for ongoing improvement.

Unfortunately, the framing of these goals failed to build on the spatially explicit descriptive models of land use and the dynamics of “occupance” set out by pioneers such as Holmes (2010), who in turn references Marsden’s (1999) insistence on holism when he declares that “. . . understanding the balance of economic, social and environmental processes which shape the contemporary countryside, and the interrelationships between these in particular localities, requires more than the rigidly sectoralised forms of knowledge which have characterized rural research in the post-war period. A synergy between previously discrete knowledge bases is now needed.”

Along one path or another all the regions undertook the journey. The resulting NRM Plans were signed off and presented back to the community for implementation.

Benchmarking evaluations of northern Australian NRM Plans were undertaken by the Co-operative Research Centre for Tropical Savannas in 2004-05 and 2005-06. These are still commendable for their scope and careful methodology. But at the time, political support had already faded. Ministers stopped

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signing off on the Plans. With Caring for Our Country in full swing, any alignment between Commonwealth (or State) investment priorities and the carefully formulated regional strategies became less deliberate and more opportunistic. When carbon became a political trigger, millions flowed into "carbonising" the plans on the assumption that they would be put to good use in the new carbon economy. But the freshly carbon-friendly plans only merited a last-minute marginal reference in the enabling rules of the Clean Energy Regulator's Emissions Reduction Fund

Years passed and regional groups diligently produced successive versions in a virtual vacuum. Yet, despite this wander through the wilderness, the current editions of Regional NRM Plans in northern Australia retain much of their original focus and intensity.

Assessment of Northern NRM Plans

There are 10 Regional NRM bodies that connect with the current Commonwealth concept of "northern Australia" (Fig. 2) These groups have been working at the heart of regional planning for close to two decades now(Healy *et al.* 2016). A review of their experience is central to any proposition for inclusive decision-making in the north.

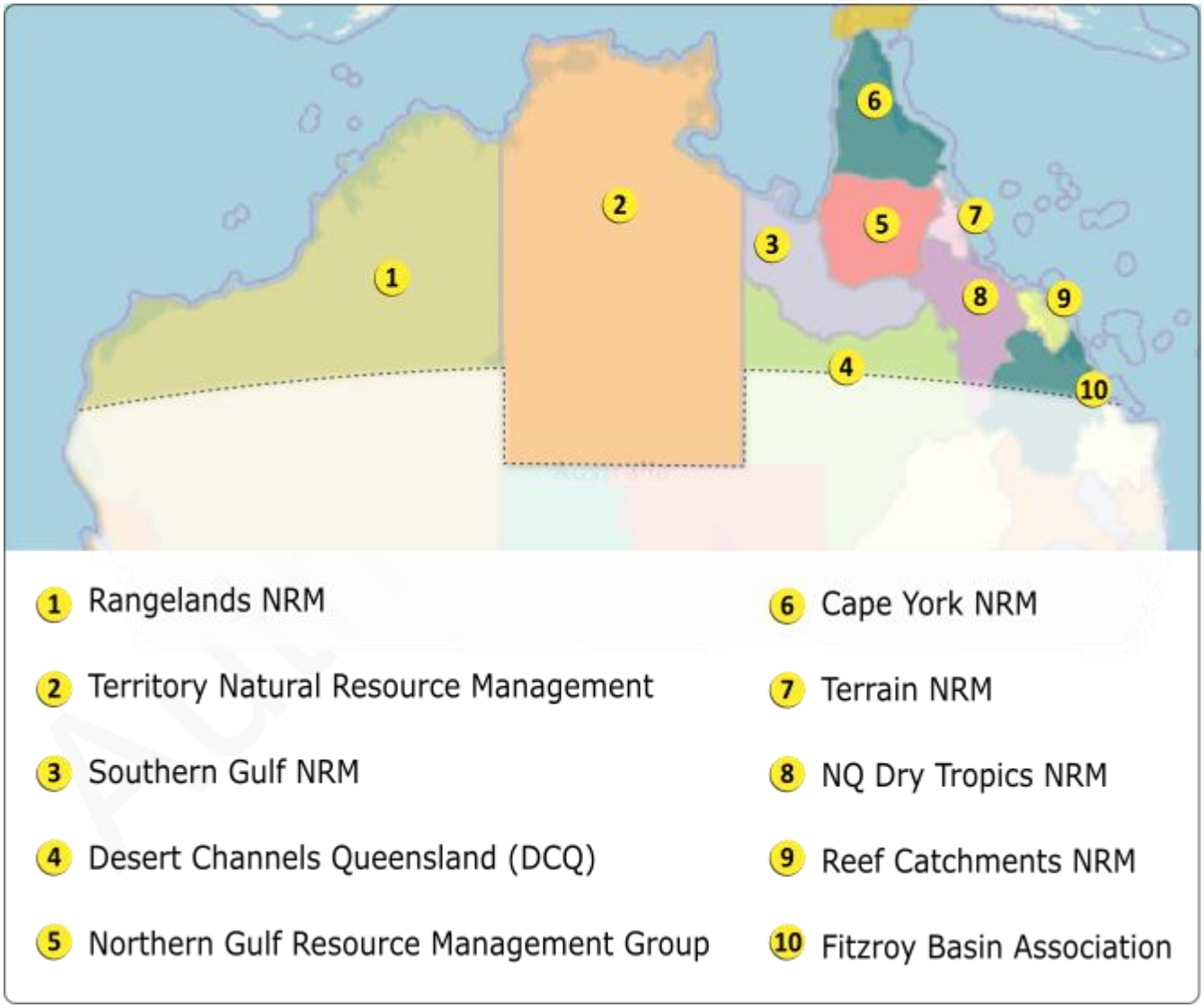


Fig. 2. NRM Regional groups in North Australia

Following is a brief review I undertook to describe how today's regional NRM Plans shape up against the original accreditation criteria (see Appendix 1 for the web addresses of the NRM organisations and their Plans).

Stakeholder involvement

How do people and their organisations interact with a planning process? The NRMMC wanted Plans to "have effective involvement of all key stakeholders in plan development and implementation". What would that look like? How would it be expressed in a Plan?

Rangelands NRM, Cape York NRM, and Terrain NRM (Wet Tropics) give extensive lists of their "Plan Partners", introducing and linking to their websites. Terrain NRM provide a list that can be filtered by type and role, which gives some indication of how these partners would be related to their Plan. The number of partners listed can run to several hundred, demonstrating the impressive scope of engagement that NRM Regional bodies achieve.

The Central Queensland Sustainability Strategy 2030 (CQSS:2030, a cross-regional NRM effort) puts "Plan our Future" as one of the three top-level headings, giving firm support to the act of planning. The website also features vox-pop style quotes from people in the region which reinforces the sense that people have been directly involved in the Plan.

Rangelands NRM frames their Plan around assets and invites anyone to nominate an asset of importance to them. Northern Gulf RMG, Desert Channels Queensland (DCQ) and Southern Gulf NRM list partners in specific programs within the main text of their Plans.

Connecting to other Plans

The NRM sector aims to communicate a regional holism...that is, to encompass all concerns in a given area. To do this requires some explicit connection with numerous other planning initiatives. The NHT guidance in this respect was that Plans ought to: "demonstrate consistency with other planning processes and legislative requirements applicable to the region."

Most of the northern NRM Plans acknowledge the legislation that has effect over NRM issues, and also acknowledge the authority of Local Council and other statutory bodies, all of whom produce some form of plans that can have relevance to NRM.

CQSS:2030 gives a visual representation of how other planning areas are grouped in relation to the regional process. NQ Dry Tropics NRM (North Queensland) has created an infographic to visually emphasise the range of other plans relevant to the natural resources of the region.

Cape York NRM perhaps goes furthest by providing an impressive spatial database of over 150 plans, legislation, and management agreements that are associated with the NRM sector on the Cape. All of this is available on from a simple map interface.

Hearing many voices

NRM Plans can be a mere catalogue of all the different views of a region, or they can become so synthesised that authentic regional expression is muted.

The Reef Catchments NRM Plan, which aggregates the interests of a number of NRM regions that are adjacent to the Great Barrier Reef, includes a traditional owner Foreword in addition to the usual Acknowledgement of Country. Cape York NRM publishes an entire subsite with stories (case studies) collected from the people of the Cape.

Science synthesis

All of the Plans take great care to marshal the best science to hand and bring it into their frameworks of management actions, targets, etc. This integration is largely internal to the Plan, however, and there are

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rarely any active linkages. For example, no plans appeared to declare explicit triggers for review based on new science findings in a given matter.

Provide for continuous development and adaptation

This provision implies that there is an ongoing commitment to funding and review is available to the planning group. Without such commitment, the Plans themselves need to declare a lot of detail about how they are put together and how they can be incrementally/opportunistically updated.

Although it's clear that much effort goes into the planning process, the process intensity can remain hidden if the only artefact being examined is the NRM Plan (at least in their typical current form).

To address this missing facet of the story, some groups choose to record aspects of the planning effort in a separate document, allowing the Plan to stand in its own right and providing insight to the process elsewhere.

For example, DCQ produced a Community Information Paper (2004) that details many of the important signs of planning. The document places their NRM Plan within a larger planning context, gives a timeline for review and re-publication, identifies the main stakeholders and their roles in relation to the DCQ Plan, and also provides a good narrative summary of the institutional and social history behind the Plan.

Rangelands NRM utilise a formal decision-support framework, INFER, that assists in setting investment priorities that arise from their Plan.

Proving the Return on Investment

As evidenced above, many modern NRM Plans are remarkable efforts. They are often beautifully designed, engaging, and deliver an incomparable level of granular information about Australia's north. The insights on display in these Plans bear testament to skillful listening and social intelligence.

Despite all these accomplishments, the Regional NRM Plans have fallen short of their intended purpose: providing a framework for objective performance measurement. Are the Plans showing that Australians get a proper return on their taxpayer dollar? The Australian National Audit Office (ANAO) has the job of getting to the bottom of that question.

The ANAO has the analytical power to reduce any matter down to skeletal ledger sheets. "The numbers don't lie", the theory goes, so the ANAO is given the last word on many matters that are otherwise ripe for partisan spin.

Over its 10 years the Natural Heritage Trust was subject to at least 5 ANAO Performance Evaluations, full or partial (1998, 2001, 2005, 2007, 2008). A central and consistent complaint in these evaluations is the lack of standard reporting metrics for assessing change in landscape condition (ANAO 2001, 2008). Put simply, the ANAO needs a way to see results, or else it cannot assess the value of the public investment.

The logic seems to be that it would make everyone's life easier if Australian landscapes, communities, and industries would provide a uniform set of national metrics we could then start making real progress toward efficient investment of public monies. Of course, there is no possibility of such mechanistic reduction. Even the valiant efforts of the Wentworth Group to install a national environmental accounting system (Boully *et al.* 2008; Wentworth Group of Concerned Scientists 2016) fall well short of the dream of a "fitbit" for catchment health.

Questions about the purpose and intent of NRM Plans were raised in Parliament as soon as they were instituted (Hansard 2004). Lawmakers wanted clear answers on how these Plans were going to fit in with

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existing policy and legislation. Plans cost money to develop, and they embody a form of authority and power. It was not obvious where NRM Plans were intended to fit into the existing architecture of administration.

The role and authority of NRM Plans remains a matter of fitful negotiation. In some States the Plans have been rolled into statute, often with narrow scope and accompanied by enforcement provisions. In other jurisdictions, the Regional NRM Plans have been so marginalised through lack of utility that they have become little more than well-intentioned window dressing.

But there is little to gain from lamenting dust on the Plans themselves...what we seek is a culture of planning. If the status and trend of such a culture can be revealed through a common set of descriptors, we will be on track toward the auditable metric that the ANAO has been asking for.

Deriving a metric for the ineffable

Measuring the benefit of NRM investment is an essential and rational goal: the challenge is deciding where to measure, when to measure, and what units will be used. Capturing something of the intended spirit of a deep and meaningful planning exercise is no small challenge. There are many recipes for how to run community engagement, how to structure strategic workshops, and how to build communities, yet the most important aspects of the exercise remain elusive.

For example, how is “stakeholder engagement” best measured? Consider the relationship between an NRM group and one of the Local Councils in its region. There may have been successive meetings and conversations with the Local Council over years, but does either the Council’s Environment Plan or the NRM Plan incorporate identical language? Is there a formal protocol for notifying intent to pursue funding or launch new initiatives? Do the two groups attend each other’s budget planning meetings? The relationship with the Council’s Environment Officer may be excellent, but what about the Mayor? And what about after the elections? And what about when the NRM group’s lead planner leaves?

Local Councils are some of the most natural partners for NRM regions. They have requirement to protect, enhance and maintain natural assets and resources as well as support community groups and encourage stewardship and sound land management. Moreover, Local Councils generally have professional governance and stable structures. Despite these natural predispositions, engagement with Local Councils can be very complicated. The complications intensify when we start to engage with conservation groups, scientists, Indigenous interests, and individual land managers.

In such a dynamic context, how can a Region accurately express its capacity, or trend, in “effective involvement of all key stakeholders”? Deriving a set of measures that aim at the inputs to a good planning process could be useful. As in other disciplines, the use of proxy indicators to show progress in an intended direction can be challenging. Proxies are indirect: there must be an agreed model to prove accurate correlation, and this introduces further complexities. As a result, the default setting is a cultural and institutional bias toward mechanistic determinism.

Why do we insist on reductionist strategies even when they are clearly inappropriate? Does our belligerence reveal a form of intellectual or spiritual disability? The question recalls a story shared by Top End linguistic researcher Prof Michael Christie to attendees at a Desert Knowledge CRC conference (Christie 2007).

Christie wanted to develop a database to encode the laws and permissions related to traditional stories of some Arnhem Land peoples. If elder (A) were to tell a story (Z) in form (y), would non-initiated youth of moiety (r) be allowed to hear it? The intricacies and conditionalities were mind-boggling. The programmers did their best. When it was finally ready for demonstration, Christie asked the elders: “Do you think this is an accurate reflection of your laws and stories?” They guffawed. Not even close. “But,”

they said, “look here.” They pointed to the sand. “This is what we’re looking at…the footprints. Who comes to this computer? Who comes to learn about their culture? We want to know: who is curious? These are the ones we watch.” The elders were keenly observing the process of planning, and did not give much thought to the rigidly-encoded plan itself.

The Seven Signs of Planning

I have argued that planning (the process) generates the most “durable” benefits (cooperation networks, resilience thinking); and that Plans (the artefact) is important for its role as a transient recording of the planning process. With this in mind I wanted to explore how a Plan could be extended to do a better job of revealing the planning process.

In Table 1, I pose a set of questions intended to reveal the necessary attributes of planning. The answers to these questions can be integrated with an NRM Plan to more clearly articulate the depth of planning intensity that has been achieved.

The questions and attributes are loosely grouped into domains that provide a bit of additional context. The idea of a “planning group” includes both the (professional) planning facilitators as well as all those who are participants in the planning process.

The questions in Table 1 (*Seven Signs of Planning*) should be taken as a set of prompts that seek to create a rich layer of “metadata” for the Plan. The prompts encourage a planning group to focus attention on the planning exercise from as many different perspectives as possible.

There is no perfect way to record the findings of these questions. Some of the attributes are more suited to simple mechanisms that can link attributes outward and inward with other networks. For example, local councils could include a procedural note in their workflows that prompts them to inform the regional NRM group when there is a review or change to their Weeds and Pests Management Plan. Likewise, the Regional NRM group can implement a notification process so that any relevant developments in these areas are passed onward to their local council partners.

The *Seven Signs of Planning* will assist in surfacing these opportunities for the benefit of further consideration and implementation into decision-making.

The discipline required to support such practice can be developed and enhanced. Each time these questions are asked, and answered at depth, layers of meaning and experience are added to the relationships, and this is the ultimate payoff.

Scales of focus: individual to institution

The journey toward more deliberate and inclusive planning requires tools that work across these scales. Potts *et al.* (2016) note, per Dovers *et al*. (2001), that "...NRM is operationalised through a web of interdependencies and interactions between a multitude of institutions." Potts and her co-authors, building on the work of Dale *et al*. (2013), developed a method to systematically assess the “fitness” of governance systems in a given domain. The governance systems analysis (GSA) framework assists in the evaluation of risk (and opportunistic potential) in a multi-stakeholder network.

The GSA encodes the sort of assessments we undertake intuitively as individuals, or informally in a group context. However, this assessment process is rarely undertaken in a formal sense at institutional level. The result is that both our communities and our institutions habitually move forward without what might be seen as a more rigorous assessment of fitness for purpose.

Analytical methods such as the GSA, and indeed any consensual planning activity as has been proposed in this paper, are like to struggle in various forms of “local” in which there are high degrees of

ideological or functional homogeneity. For example, Indigenous communities can advance along pathways quite orthogonal to the pathways that the GSA seeks to signpost. Likewise, “nucleated rural settlements” (Holmes 2010) such as those of the Barkly could frustrate planning methodologies which are optimised for nurturing highly-diverse communities towards consensus.

On balance, however, the GSA appears to offer an assessing methodology that would be a bold step upward for the NRM sector. Several real-world validations of the GSA method have been produced using the Wet Tropics and Cape York as case studies (Potts *et al.* 2017). These pilot projects demonstrated its promise as a robust analytical tool with application in north Australia and beyond.

Limbering up for the future: the expression of regional resilience

This paper began by noting that project developers in the north are seeking economic returns that can be reliably achieved in a “sustainable” way. In many cases, sustainability was to be shored up through guarantees and commitments to avoid changes that might disrupt the developer’s business model. Yet, as has been thoroughly emphasised here, change is the only guarantee worth putting in the bank.

Over the past decade discussion has evolved past the notion of sustainability toward resilience (Abel *et al.* 2016). Resilience, like “sustainability”, expresses something that we “feel” is important to achieve, but it can be challenging to agree on a precise definition. Rather than dissecting the possible meanings of resilience, I would like to consider its practical deployment as an emergent quality of successful planning in northern Australia.

The problem with resilience is that we can’t measure it in advance. We can’t say how much of it is stored, like the amount of wheat in a silo or water reserved in a dam. Resilience is only manifested when a reality occurs that demands its expression (Quinlan *et al.* 2016). And realities are unique to their moment--there’s no formula for how to repeat an expression of resilience. Consider how resilience could be measured in northern Australia:

- When the drought finally broke, were we well-positioned to restock and rebuild?
- When the free trade agreement collapsed and export markets closed, were our producers able to pivot to domestic opportunities?
- When natural capital was monetised on the blockchain, were our communities ready to invest their shared wealth equitably and wisely?

Thus, resilience can only be observed retrospectively as we seek to answer the question: following a period of exceptional stress, how did we respond? Did we respond effectively and recover efficiently (ie with resilience)?

The capacity for resilience can be actively cultivated. For example: our capacity to avoid epidemics or rapidly recover from disease outbreaks is a focus of public health; our preparedness for new forms of work and innovation and our ability to bounce forward through disruption is a function of our education and research sectors; and the nation’s supple response to economic pressure is an achievement of the financial sector and government policy. Resilience can be developed through coordinated, purposeful exercise, as people and agencies become “accustomed to working together on hard problems” as Eisenhower put it (Hadley 2009).

In northern Australia resilience takes form at the intersection of ecology, culture, and economy. There is no single agency or industry whose mission delivers living landscapes and local livelihoods as a coherent package (Harper 2017). What we lack is a formal enclosure, a church, in which to practice the

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rituals of holism that will explicitly build resilience. NRM Planning can be a deliberate form of communal exercise that serves this purpose (Dale *et al.* 2017b).

What we're aiming to shape, through the protocols of planning, is a social habit of mind, primed for life-affirming inter-subjectivity. Imagine what a resilience fitbit might look like if attached to a community as a whole. What would the readouts be? What units? Planning requires us to be explicit about who was involved, what was said, and who to network with as the future unfolds around us. Great plans reveal the tortured path, the trade-offs, the misgivings, and the outlier ideas. The planning of North Australia is a cooperative act, and planning requires us all at the table, including Lyn and Gina.

Australia's NRM arrangements have been admired both at home and internationally (Campbell *et al.* 2018), despite the structural flaws (Lockwood *et al.* 2007; Curtis *et al.* 2014) and perhaps overly-pragmatic motives behind the formation of the Natural Heritage Trust (Marohasy 2005). Regional NRM Plans and the planning process provide a necessary framing to the project of development. Yet, in the face of unquestionable achievement, successive governments have missed the opportunity to strengthen and extend regional arrangements (Griffith 2009), and the most recent version of the program ($90M/yr Regional Land Partnerships) is little more than a rounding-error secured through desperate political supplication.

Perhaps Canberra's ongoing retreat from the regional model has occurred as a calculated strategy to reduce competition in the landscape of thought leadership. More likely, the decline in funding is one more example of mis-applied neoliberal ideologies and the persistence of a frontier culture that is no longer fit for purpose.

Even when deep planning is supported, the lack of an agreed set of metrics to assess the quality of planning means that investment in the process is reluctant and contingent instead of whole-hearted and fulsome (Robins and Kanowski 2011). As with other domains, it seems clear that our reductionist institutional rulesets will need to change (Healey 1999). We need to stop measuring precise and unimportant attributes and be brave enough to obliquely measure the vague yet important. It is the footprints in the sand that we need to trust.

Development in a consensual frame: urgent need for cooperative co-invention

From many perspectives the future confronting us is ominous (Maddocks 2015; Derbyshire 2018). As a species we first invented and then burdened ourselves with a machinery of economics that turns out to be indifferent to the biological imperative that gives us life (Gray 2015). Worse: we have yet to admit to a staggering collective ignorance of our proper place in the ecosphere. As a species, and particularly as a colonising culture, we have reached no agreement on what we're doing here on the planet (and that includes northern Australia).

The question of what comes next, after the Age of Economics, is a fascinating one (Kahneman 2011; Harari 2016). Certainly, plans are irresistible. Who can turn their gaze away from an oracle, a white paper, or a high frequency trading algorithm? These inventions offer bewitching assurances about how the future will unfold. And as long as we remain anxious about the future, the allure of prediction will remain potent. If we manage to persist as a species long enough, we may find our way to the "wisdom of insecurity" (Watts 1951). Perhaps the path will lead to a re-imagining of science, a "new kind of science" (Wolfram 2002), intrinsically respectful of the irreducible complexity of living systems.

Planners would do well to consider cooperative and consensual technologies suggested not only by the academics, but also echoing in the re-blossoming practices of Indigenous culture (Pascoe 2014; Thornton 2017). As Glanville (2014) points out: "…what the longest continuous unbroken thread of human history points to is an extraordinary level of capacity and resilience, innovation and adaptability, not disadvantage."

In this article I have invited a renewal of confidence in non-linear “soft” technologies and asserted that inclusive and robust social norms can emerge through the ritual of planning. I have suggested some indicators that can be used to systematically evaluate the quality of planning processes. And I have positioned Regional NRM as a pragmatic starting point for a revival of community-scale civic discourse. Losing the north through an ill-suited approach to decision-making would be a lasting tragedy: we have an obligation to handle the opportunity of northern Australia very attentively. Across north Australia we wish to provide groups of people, agencies, and institutions sufficient dynamic stability to hold themselves together and move forward as the complex future becomes manifest in the present.

I return to the practice of planning as the most available and effective crucible for the alchemy of community. The act of planning can be a deliberate form of narrative technology, of coaxing forth emergent stories that improve cooperative capacity and communal resilience. Thus, planning is how we will find ourselves on the most commendable paths into the un-foreseeable futures before us.

Appendix 1

State	Regon	Website	Plan site	Plan doc
NT	Territory NRM	http://www.territorynrm.org.au/	https://www.territorynrm.org.au/the-nrm-plan	
QLD	Cape York NRM	https://www.capeyorknrm.com.au/#	http://plan.capeyorknrm.com.au/	http://plan.capeyorknrm.com.au/planning-by-doing
QLD	Desert Channels	http://dcq.org.au/		https://dcq.org.au/wp-content/uploads/2015/04/DCQ-NRM-PLAN-2016-2020.pdf
QLD	Fitzroy Basin Assn	http://www.fba.org.au/	https://www.fba.org.au/about/our-plans/	
QLD	Northern Gulf	http://www.northerngulf.com.au/home	http://plan.northerngulf.com.au/	http://plan.northerngulf.com.au/wp-content/uploads/2016/02/NGRMG-NRM-Plan-2016-2021.pdf
QLD	NQ Dry Tropics	https://www.nqdrytropics.com.au/	http://nrm.nqdrytropics.com.au/	https://drive.google.com/file/d/0B2eYGb5_I-adVXJVOVN2bWcyOFE/view?usp=sharing
QLD	Reef Catchments	http://reefcatchments.com.au/	http://hcmif3k7kt343pwrn2ytkt39.wpengine.netdna-cdn.com/files/2015/02/MWI_NRM_Plan_2014_2021.pdf	http://hcmif3k7kt343pwrn2ytkt39.wpengine.netdna-cdn.com/files/2015/02/MWI_NRM_Plan_2014_2021.pdf
QLD	Southern Gulf	http://www.southerngulf.com.au/		http://www.southerngulf.com.au/wp-content/uploads/2017/01/SG-NRM-Plan_LOW-RES.pdf
QLD	Terrain	http://www.terrain.org.au/index.php/	http://www.wettropicsplan.org.au/	
WA	Rangelands Coordinating	https://rangelandswa.com.au/		http://regionalplan.rangelandswa.com.au/

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Table 1. The Seven Signs of Planning.

Key question	Comment	Method
1: Who has been involved, and how? Domain: People, agencies, and organisations	Plans are expressions of intent by a group of people. It is essential that the Plan declares its human and organisational midwives. In the language of the Plan, there is often an implicit "we". There is a great deal of value in explaining who this is and how they were involved in the formulation and acceptance of the Plan. More details matter: it is important to say how different people and groups participated because there are many ways that people can have a relationship with the Plan, and this is of central importance to them. It's possible to have a group of active, vocal stakeholders whose specific views are never fully expressed in the Plan itself, but whose contribution to the process and conversation have been invaluable. It's possible to have powerful critics who never "sign on" to the Plan, but whose opposition forced better solutions and strategies to be developed.	The most powerful mechanism is to include direct quotations or comment from the contributing entities. However, a more systematic accounting is also required. A table of contributors is very good as it provides named connections to the Plan. Can this be extended to provide more richness? Is it practical to characterise the form of input made by contributors? Is it possible to weight their input according to some estimate of intensity?
2: What other plans does this Plan reinforce or draw upon? Domain: Authorities and planners	Locating the Plan in context with other Plans encourages the formation of resilient networks of relationships, especially between authorities. The planning group needs to make itself aware of the larger planning environment. For example, a region dominated by national parks will want to be very aware of the annual budget cycles and the review dates of management documents that the State and local rangers develop. Similarly, there could be big gains by securing an advisory or review function for management plans developed by corporate managers across their portfolio of properties. The planning group should be challenged to locate, catalogue, prioritise, and synthesise as many relevant plans as possible.	The nature of these linkages can be described in many different ways, from Venn diagrams to case studies. Are there cross references, citations, or deeper linkages to other Plans? Is there a trigger list to show what might cascade in or out of the NRM Plan in relation to changes in other Plans? Do other entities track the NRM Plan in a similar way to how the NRM Plan tracks them (ie, is there a reciprocity of awareness?)
3: Are there differing or conflicting Plans?		

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Domain: Authorities and planners	Acknowledging differing Plans is an exercise in critical thinking and an open expression of uncertainty. The planning group can use this uncertainty to examine structural risks and valid critique posed by alternative and oppositional forces. By acknowledging, in detail, the interests that remain opposed to the goals of the regional NRM Plan, a potential line of communication is established with those interests. Bringing attention to them will help ensure that, should circumstances change, they will already be in the accounting of potential allies and collaborators.	To help map out the landscape of plans, it could be helpful to use graphical techniques such as power mapping. By deriving types and classes of the opposing interests, the planning group is challenged to be specific about the perceived issues. The more nuanced this mapping exercise becomes, the more likely it is to yield a positive conclusion.
4: What are the aspirations and perils that the Plan is concerned with? Domain: Cultural narratives, shared perceptions	The Plan needs to clearly aim toward a desired outcome, which usually involves a combination of moving toward some state of affairs, and away from another state of affairs. There is a tension between diving into the details and soaring too high into the generic. It is an artform to strike the right balance between being too vague and too specific, and, like art, there is no "right" answer. What is essential is that the process of arriving at a particular goal statement is undertaken as a conscious exercise among the planning group. Reaching a haiku-like minimalism is only possible through extended discussions that lead (eventually!) to the most satisfying summary. Even if this is not "achieved" within the practical limits of the planning exercise, striving for it is a vital stage of group development.	Start with the most generic goal: how do we make decisions that allow us to thrive within ecological limits. What does this mean if spoken through the dialect of a region's particular attributes? What are the key opportunities and risks for each area/industry/environment, and can this be summarised to the regional scale through a few key sentences? The act of expanding and tightening the Plan's scope is a terrific way to sound out the range of vision and concerns amongst the group.
5: What are the consequences expected by following (and not following) the Plan? Domain: Cultural narratives, shared perceptions	Plans often contain a detailed analysis of risk and recommendations. For example, some Plans are set out in terms of assets and threats. The expected consequences of undertaking a management action (or not) can be usefully described at this level. There is also a more general assessment for the Plan in terms of its overall effects (or failure to effect). A fair bit of utility can be derived through the exploration of broad consequences. By making this discussion clear in the metadata of the Plan, a larger conceptual surface area is created for people to express their involvement. If pursued more deeply, the planning group will begin to sense that they are creating a relationship of trust that will mutually benefit them in any circumstances. This is the core of a resilience capability.	The planning group needs to be able to focus on the consequences of adherence or deviation from the Plan. The first stage of this exercise can generate a set of promises and threats that connect directly to the specifics of the management actions in the Plan itself. This is useful inasmuch as it helps glue participants to an actionable attitude toward the Plan.

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6: Who is most affected by these consequences, and what do they have to say? Domain: Cultural narratives, shared perceptions	Many negotiations are conducted as trade-off exercises with a zero-sum result (ie, the gains of the winner are offset by the losses of the loser). Parties are tempted to look at the "bottom line" sum of their wins and losses in a proposed agreement and will fixate of improving their position. This posture often obscures the complex on-ground realities that evolve over time. Considerable value can be gained from securing direct statements from parties in relation to the Plan. The beneficiaries will be led to examine their position in the same way that parties who feel disadvantaged will see that their issues are respected and recorded.	By setting forth to map or quantify the winners and losers, a conversation is established that can be extended through shared experience. The key element here is extending the tally (of wins/losses) horizontally through time so it shows a series of linked actions and consequences for any given actor.
7: What are the limits of coverage: geographical and temporal? Domain: Time and space	The Plan needs to offer some specific commentary on its limits of coverage. In the NRM world we often do little more than stake out a bio-geographic region. However, there are no such boundaries in complex systems. Geography needs to be considered as a system of landscape flows. The flows of water, weather, commerce, and ecology are always influencing across boundaries. A planning group deeply engaged with the process of planning can undertake an examination of their region's boundaries specifically from the view of cross-boundary flows. This will inevitably lead to conversations with the neighbours, which in turn will lead to a more nuanced and sensitive appreciation of inter-regional dependencies. Temporal dimensions for a Plan are often expressed in terms of years. Other possibilities include seasonality and cyclic land management activity. A good plan ought to explain the time periods over which it was developed as well as the expected time frames for its review, refinement, consultation/comment, and re-publication as the next iteration.	Specific attention should be given to how a region transitions to its neighbours. A good analysis will discuss the main routes and reasons for people, flora/fauna, weather, and money moving across the region's boundaries. This sets the stage for cross-regional programme logic and allows analysis to be scaled up/down more procedurally. In relation to the Plan, temporal limits are best illustrated through a workflow that shows the process of review, consultation, synthesis, drafting, review, acceptance, and next review. In relation to the Region, temporality should be expressed in relation to projected population, climate changes, major infrastructure projects, and other factors "external" to the Plan yet which have a direct relationship to the matters that the community are concerned with.

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