Oswin Maurer (PhD)

Professor (Chair)

Faculty of Economics and Management

Free University of Bozen-Bolzano, Italy

Eminent Professor

William Angliss Institute

Melbourne, Australia

Review and Analysis of the University of Newcastle "Great Koala National Park Economic impact analysis and environmental benefit assessment"

Executive Summary

This review provides a comprehensive, independent analysis and critique of the GKNP study (the Study).

The Study is based on a number of key assumptions about the GKNP development, including its impact on the timber industry, economic and environmental benefits, requisite capital investment and tourism demand.

Financial figures in the Study are estimated on the basis of 'data supplied', yet there is no provision for upper and lower estimate limits, nor provision for the possible range and variance of public expenditures and returns which would allow the reader to roughly assess the associated risks to assumed benefits created.

Further, due to major shortcomings in basic data and multipliers and the use of inflated numbers and/or multipliers in several calculations, the results presented in the Study appear to lack validity in estimating the real future benefits of the GKNP development. Overall, the assumptions and results presented in the Study require thorough reliability and robustness checks.

It is also recommended that the NSW State Government review the expenditure and benefits delivered by comparable investments in the past, benchmarking previous pre-investment assumptions, promises, expectations and recommendations from studies used in past developments against the actual value, as delivered across a 10-year time horizon.

It is essential that this benchmarking of the real value delivered by the GKNP takes into account the ratio of public investment/follow up private investment to determine if the seeding effect of public money has been achieved.

The Timber Industry: Economic + Employment Impacts of the GKNP

The Study states that current total Wood Supply Agreement (WSA) harvest in close proximity to the GKNP is 245,606m^3, representing 60 per cent of the total quantity of hardwood timber harvested and processed annually across the entire North Coast region.

Revoking almost two thirds of the region's timber supply would have highly negative effects on downstream timber operations and industries, including on their competitiveness and consumer prices. It is important to note that effects on industry cannot be computed in a 'linear way', as the Study attempts to do, as there may be a number of additional and dynamic effects impacting on economic well-being, both regionally and nationally.

Such a linear approach significantly underestimates the economic impacts of the GKNP on the timber industry and is inconsistent with best practice methodology.

The Study also does not provide sound justification for its calculation of the GKNP's timber industry employment effects. It uses a 'mid-point estimate' to project employment effects but does not specify what this 'mid-point estimate' represents, how it has been calculated or exactly the effect it has on the employment effects presented.

Environmental Benefit Assessment

Methodological Problems: The authors base their valuation model on an academic journal publication derived from secondary data. Applying results of such publications to concrete projects has an obvious shortcoming: the objectives and data collection method of the underlying studies are not documented, as this is not required when conducting a global academic meta-analysis.

The data quality and accuracy in the Study's stated preference models rely on case-specific questionnaires and interviews. This means that the results are highly specific to factors such as the objectives and size of each study and the questions posed. **As such, they differ substantially from the GKNP project in terms of location, size, socio-demographics and specificity.**

Some of the factors used in the Study as value/monetary multipliers (WTPs) have been taken from an UK study and directly applied to estimate GKNP environmental value. Using multipliers generated for one project in a distinctively different socio-economic and cultural setting and context is highly questionable. **As a result, the WTP multipliers used in the Study are heavily biased towards North American and European data, with Australia greatly underrepresented.**

Crucially, the Study uses data for computing WTP multipliers which has been drawn from a study which analyses data from papers written up to 40 years ago, overrepresenting older studies/data.

The Study would have greatly benefited from alternative methodological approaches outlined in this review (page 4).

As no location and subject-specific environmental benefit research has been undertaken for the Study, one must conclude that the results do not provide a robust foundation in support of the findings presented.

The Problem of Double Counting: The GKNP development proposes to convert 175,000 hectares of state forest into national parklands, extending the existing 140,000 ha of national parklands to total 315,000 ha.

The Study's GKNP benefit assessment fails to take into account the *existing* economic value of the national parklands and state forests that will be combined to form the GKNP. Further, as the envisaged GKNP area is an *extension* of existing national parklands, the additional value created is usually lower than for the first, unique establishment of a new national park, representing a *decreasing marginal* benefit.

Given this, the environmental benefits presented in the Study grossly overestimate the additional value to be derived from establishing the GKNP.

Tourism Demand Analysis

There are significant problems with the Study's tourism demand analysis. The Study's tourism projections are largely based on statements unsupported by evidence. The key assumption is that '*Koalas in the natural environment are a significant nature-based tourism drawcard and therefore have considerable existing economic value to NSW*'.

Further, the Study makes several suggestions for the GKNP development which are either counter-productive to a GKNP (i.e. mountain bike trails, horse riding trails, koala sanctuaries) or are already ruled out by legislation (i.e. recreational motorsports). The Study also fails to take into account the cannibalisation effects of the GKNP development, where the new development would draw visitors from current destinations and attractions in the region.

Visitors: Many of the base figures and multipliers for tourism development used in the Study grossly inflate results and hence inflate the economic impacts and benefits of the GKNP development.

For example, the Study uses data taken from research entitled '*Annual Visits to NPWS Managed Parks in New South Wales*'. As the title states, the number of *visits* is the subject of the research, not the number of *visitors*. Visits data recognises that one visitor may visit multiple destinations within the North Coast region. Visits data represents the sum of non-unique visits within a region.

However, the Study uses the number of *visits* quoted as a proxy for number of *visitors*. Across a 15-year timeline, re-categorising the number of *visits* to the number of *visitors* has a significant inflationary effect on the extrapolation of future visitor numbers.

Accommodation: There are also numerous problems in the Study relating to the provision and funding of accommodation and tourism facilities servicing the GKNP development across the five LGAs.

The Study projects visitor growth rates of 18+ per cent in year four and 63 per cent after 14 years. Current accommodation infrastructure in the five LGAs would not be able to deliver on the demand assumed in these visitor growth rates.

The lower boundary of rooms required (based on visitor numbers assumed in the Study), suggests that in the *first three years* after establishing the GKNP an additional 1,000 rooms would need to be built within the five LGAs. Based on average building costs for tourist room accommodation across all quality levels in regional Australia, construction costs for these additional rooms would total $100 – 150 million.

In all, within the *first 14 years* of operation of the GKNP a total of 3,500 rooms would need to be built in the region, requiring an investment of $250 – 350 million to deliver on the promise to support economic growth in more remote parts of the relevant LGAs.

The Study also emphasises the importance of room quality in driving higher spend tourism. Yet current room numbers do not meet the levels for the quality experience customer base. The whole experience (activity, accommodation, food, quality of service) must be highly attractive across all components/ factors. If one of the components does not meet expected standards, the overall experience is ranked down.

The Study does not address where additional accommodation facilities would come from and how these would fit into the envisaged overall 'high-quality experience' of the park.

Private Sector Investment: In addition to investment in new accommodation, investment in private sector hospitality and tourism operations and infrastructure for commissioned experiences within the GKNP must be considered.

However, although substantial private sector investment is required for the success of the GKNP development, whether and how this private sector funding would be raised is not addressed by the Study.

The Review of the Great Koala National Park (GKNP) - Economic impact analysis and environmental benefit assessment

The Economic impact analysis and environmental benefit assessment for the envisaged Great Koala National Park (GKNP) prepared by University of Newcastle in 2020 has raised public interest as well as interest from government and political parties.

The following is an evaluation of some of the more important aspects and results reported in the study. The aim of this evaluation is not to oppose or criticise the idea of a Great Koala National Park (GKNP), but to evaluate the above-mentioned study with regard to some of the assumptions, the data used, its analytical rigour, the robustness of results, as well as if policy measures recommended are in alignment with reality. The study is frequently referred to by stakeholders and decision makers to support a public/private investment opportunity of magnitude, regionally and nationally. The following appraisal follows international academic and business policy evaluation practice, it hence does not take individual preferences and attitudes of stakeholders and decision makers into account.

Introduction

The research undertaken by University of Newcastle titled "Great Koala National Park - Economic impact analysis and environmental benefit assessment" endeavours to provide an independent assessment of the potential impacts of the proposed GKNP. The park is envisaged to be located in five local government areas (LGAs): Bellingen Shire Council, Clarence Valley Council, Coffs Harbour City Council, Kempsey Shire Council and Nambucca Shire Council. The assessment was jointly commissioned by Bellingen Shire Council, Coffs Harbour City Council and Destination NSW (North Coast).

The authors state to have delivered an economic impact analysis (EIA) and an assessment of the environmental benefits (EBA). The authors further claim to have delivered evidence-based findings and results and identified the key potential values of GKNP.

The GKNP study relies on data and models extracted from secondary literature, extrapolating data and results for the purpose of their study. From an analytical and robustness of results perspective, considering international good practice, the study does not provide for a realistic and applicable analysis of economic impacts (EIA), nor for a reliable environmental benefit assessment to be used for informed public and private investment decisions. Main reasons are: major methodological shortcomings, treatment of data, unrealistic assumptions, particularly on tourism flows, tourism behaviour and tourism spend.

From a methodological perspective, the study applies a "soft" and generalised approach to establish a "hard" and specific transformation and investment case that should support the call for public investment of more than $ 100 million and operational expenditure of more than $ 120 million.

Economic Impact Analysis (EAI)

As the authors correctly state,

- *"EIA is a useful tool to measure the direct and indirect (or flow-on) effects of a policy change or public infrastructure proposal at a regional level" (page 10).*

In the very same paragraph they also state that "at the regional level this approach makes sense in economic terms because there is not a significant constraint on the availability of labour and capital". However, this very statement is not reflecting realities, as it is widely known that investors are rather careful about where and how much they invest and the tourism sector being very short of qualified and currently also non-qualified labour, due to extremely low mobility towards this sector.

Tourism labour supply shortages will not be remedied over the next years. In contrary , the attractiveness of the sector as an employer has decreased substantially over the last decade. Working in that industry is perceived to be rather unattractive for many reasons (low pay, part-time and seasonal employment, no regular working hours, weekend work, asset specific skills and competencies, etc.). Covid-19 has further accelerated this effect. Hence, a significant constraint on labour, as well as on capital, does exist as it is easily observable.

The REMPLAN model was used in the study to derive the multipliers of direct economic activity and to calculate the indirect and induced economic activity in the particular region, as well as the expected total change in economic activity . To measure the direct, indirect and induced economic impacts of the proposed GKNP, four key economic indicators were used (page 10):

- Employment: number of full-time equivalent (FTE) jobs generated
- Income: income earned by employees as part of the operations of the activities in the GKNP:
- Value added: value added generated by the proposed GKNP
- Gross output: the value of goods and services produced by an economic entity (the region).

The study makes a wealth of assumptions on capital investment and operating expenditure (page 53).

It remains unclear, how authors have arrived at the economic and financial figures computed. The estimates are "based on data supplied" and form the foundation for the modelling of economic effects of the proposed GKNP. When using estimates as inputs for economic modelling, it is common practice to at least provide for upper and lower limits to demonstrate the range and variance (associated risks) of public expenditures and returns calculated.

Considering REMPLAN multipliers to be highly accurate, the problem persists. The basic assumptions, numbers serving as basis for calculating the economic impact multiplied with REMPLAN coefficients on economic development in the 5 LGAs appear to be rather unrealistic. Hence, the assumptions and results of the Economic Impact Assessment of GKNP would at least require some thorough reliability and robustness checks.

Several economic development suggestions are presented in the study, some of which are either counter-productive to the establishment of the GKNP as envisaged, such as: "... new and upgraded...mountain bike trails, horse riding trails (page 8), "...wildlife experiences such as koala sanctuaries" (page 17), or ruled out by legislation, such as: " recreational motorsports" (page 8), to name a few.

With regard to forestry operations, two different studies are cited in the GKNP study as sources of data (E&Y 2019 and NPANSW 2019). Potential impacts of GKNP on the state forest native logging industry extrapolated in the two studies differ substantially.

- *"Overall, the NPA estimates that the number of impacted jobs would likely be far smaller than estimated by EY and that the impact on local employment is similarly overstated" (page 27, Table 4.2.).*

A sound justification, apart from 'employment numbers would likely be far smaller' and proof, why certain estimates for employment effects have been used in the GKNP study is missing.

However, the authors state further:

- *"Based the different 2019 estimates from EY and the NPA, as well as desk top research, this assessment makes, the following assumptions about the potential impact in the proposed GKNP region (page 28)*
- *"The mid-point estimate is 675 FTEs over a 10 year period (or 67.5 FTEs per year)".*

whereas it is only known to the authors, what this 'mid-point estimate' represents, how it has been computed and which effect it has on the results presented.

Regarding a possible government timber supply buy-back programme, the authors state (page 25):

- *"Given that this estimate assumes that the timber mills within and proximate to the boundaries of the proposed GKNP source 100% of their logs from the proposed GKNP state forests, the estimates should be considered as an upper-bound cost of a buyback program".*

These estimates, right or not, are rates for buying back logging rights at dollar value. Hence, there is no upper or lower limit when a buy-back scheme is put into place, it is a straight forward compensation for m^3 of relinquished timber harvesting rights.

The GKNP study estimates the current WSA harvest total in close proximity of the proposed park (Table 4.1, page 24) as to be 245,606m^3, a quantity that is also used for further calculations of impacts on the hardwood industry. These 245,606 m^3 represent 60 % of the total quantity of the 415,000 m^3 of the hardwood timber harvest and processed in the whole North Coast region.

As the NSW North Coast forestry industry 'is almost entirely reliant on native forest hardwood logs, with limited hardwood plantations' (E&Y page 11), effects on industry cannot be computed in a 'linear way', as there may be a number of additional rather dynamic effects impacting on the economic well-being regionally and nationally. As a matter of fact, if an industry is 'almost entirely reliant' on supply from a certain source, in this case 60% +, according to figures provided in the GKNP study, it is reasonable to project that cancelling this supply would have highly negative effects on downstream operations and industries, on their competitiveness, and on consumer prices for timber and timber products, to name a few.

Environmental Benefit Assessment

As the authors correctly state

- *"Valuing benefits such as a larger or more sustainable koala population or biodiversity poses special challenges" (page 11).*

As explicit market prices for the goods and services to be created by GKNP do not exist, the authors base their valuation on an academic journal publication that evaluates individuals' preferences and their willingness-to-pay (WTP) for it.

Secondary data from stated preference literature is used, however, objectives and data collection method are not revealed/documented. As data quality and accuracy in stated preference models rely on case specific questionnaires/interviews, results are highly specific to the objective and size of each study, the questions posed, the project investigated, etc. Hence, they do differ substantially in terms of geo-spatial location, size, socio-demographics, the specificity of the project, etc. In empirical studies, all of these factors have a high specificity with regard to the object/subject of study, and they have to be taken into account when used for a different purpose, as well as their relevance and applicability for a substantially different project.

Some data presented, or better factors used as value/monetary multipliers, have been taken from an UK study and values drawn from this study have been directly applied to estimate GKNP value without taking the above requirements into account (Table 6.1, page 37: Valuation of the proposed GKNP). The toolkit used is freely available on the internet and provides for a spreadsheet with fixed multiple values for the UK. The use of such multipliers, generated for a different project, in a distinctively different socio-economic and cultural setting and context does not satisfy sound scientific evaluation standards.

As the authors correctly state,

- *using "stated preference methods require significant resources if they are to be done well and can suffer from biases that often limit their validity and reliability if that is not the case" (page 37). Hence, accurate survey design and rigorous testing responses for robustness are a pre-requisite for using this approach, including tests proofing that responses can be reproduced, and are consistent and stable over time" (page 37).*

This is a 'conditio-sine-qua non' for establishing a sound and concrete case, i.e. the establishment of the GKNP. Despite the statement (page 37), none of these important tasks have been performed, as already outlined above.

The study would have greatly benefitted from a simple, but original market-based valuation (direct revealed preference method) to determine actual and current consumer behaviour/response in the envisaged GKNP region, the North Coast, in NSW, and/or Australia.

Alternatively, the use of stated preference method research in the region under investigation would perhaps have promoted the research to at least acceptable levels of accuracy and reliability.

Furthermore, a quasi-experimental approach to determine actual behaviour and willingness to pay (WTP) could have been used, a cost efficient method rather easy to implement.

As no such location and subject specific research has been undertaken for the GKNP study, the results presented are not based a robust foundation to support the findings presented. Further reasons are:

- the study used to extract WTP coefficients for GKNP (*Nobel, A. et al, 2020: Are biodiversity losses valued differently when they are caused by human activities? A meta-analysis of the non-use valuation literature; Environ. Res. Lett. 15 073003)* is based on an evaluation of international publications over the last 40 years,
- the objective and the scope of the publication used are substantially different from the objectives of the GKNP study,

- as it is a theoretical/methodological work, it attempts to explain the variation in non-use values between the studies investigated via meta-regression models, and not to primarily identify generalised WTP monetary values for particular settings and specific objectives.
    - authors of the original study (Nobel et al, 202) explicitly warn against unreflected use of their computed WTP coefficients, as they found that:
        - "...outcome uncertainty has a significant impact on mean stated WTP in all models of welfare measure that is used in the valuation studies..." (page 14).
        - "Generally, findings from funnel plots need to be interpreted with care, as WTP estimates from various primary studies with heterogeneous characteristics are plotted and some of the observed patterns may be explained by between-study heterogeneity ..." (page 11),
        - "Publications based on data collected in Oceania, South America and Africa are underrepresented. This implies that any policy recommendations derived from this dataset are biased towards the preferences of North Americans and Europeans" (page 10),
        - "A closer examination of the estimates in the meta database revealed that eight estimates from two publications appear to have both a relatively large mean WTP and a large sample size, indicating that these estimates may be highly influential in the meta-analysis." (page 10).

Hence, the WTP factors and results presented in the GKNP study are subject to certain bias. Secondary data derived from a theory/method focussed study is used as the basis for GKNP value calculations:

- based on data that has been collected from papers up to 40 years ago, and, as the original authors state, older studies/data are overrepresented,
- Australia is highly underrepresented in the studies analysed, results are heavily biased towards North American and European perceptions.

Using results from a literature meta-analysis performed on a global scale and with a very different research objective may not be an appropriate substitute for conducting a robust analysis. Such an analysis should be based on accurate local/regional data, particularly if results are to be used for decision making at the local/regional level with high asset specific investments of 144.9 million to be financed by the public (Table 5.1: Additional capital expenditure, page 29).

Most importantly, not been taken into account by the authors of the study, is the current and future scale and scope of the GKNP. It is envisaged that 175,000 hectares of state forest in the region are to be converted into national park area, extend the existing national park of 140,000 ha to a total of 315,000 ha.

Currently, already 44.4 % of the area assumed to become GKNP are already under national park regime, with its benefits to fauna, flora, residents and visitors. Additionally, there are 175,000 hectares of state forest proposed for conversion, which are currently already delivering value to fauna, flora, residents, visitors, and society. As state forests are managed according to sustainable management practices, it is reasonable to assume that it already delivers substantial value, value that is solely attributed to the envisaged GKNP in the study.

As a result, the additional value created by establishing GKNP cannot be calculated on a total of 315,000 hectares. The already existing national parks area has to be discounted, as well as, at least

proportionally, state and private forest that is open for use by communities and tourists, delivering value at all levels.

Furthermore, the WTP for an extension of an existing national park is usually lower than for the first and unique establishment of a new national park (decreasing marginal benefit). Hence, it appears that the environmental benefits gains in dollar terms presented in the GKNP (Table 6.2: Valuations of biodiversity for the proposed GKNP, page 40) are overestimating the values to be additionally gained to a considerable extent.

Tourism demand analysis

This section begins with the statement:

- *"Koalas in the natural environment are a significant nature-based tourism drawcard and therefore have considerable existing economic value to NSW" (page 17)*

However, no proof or evidence is provided to support that statement.

Tourism and Visitors

Most importantly, the GKNP study states:

- *"In 2016, the total annual number of visitors to national parks in the North Coast region was 9.1 million. In 2018 this was 7.3 million" (page 18).*

The data is obviously based on Roy Morgan's Annual Visits to NPWS Managed Parks in New South Wales (2019, p.16). Evidently, the number of visits evidenced has been used as a proxy for number of visitors with substantial effects on all subsequent calculations.

As Morgan's and other visitation **data is based on the number of visits and not on the number of visitors**, recategorizing visits as visitors has an inflationary, but decisive effect on the extrapolation of future visitor numbers along a 15 year timeline. "Visits data recognises that one visitor may visit multiple destinations within the North Coast region", as one visitor may travel to Bellingen, Nambucca, but also to Byron. Visits data counts this travel as three visits, while visitor data would only count it as one visitor. Visits data, therefore, represents the sum of non-unique visits within a region" (Stafford, 2020, Destination North Coast, p. 6).

The GKNP authors state (page 16):

- *"The creation of the proposed GKNP would see the introduction of a premium experience of both state and national significance. As a result, it is anticipated that the destination would be a feature in both Destination NSW's and Tourism Australia's marketing activity as both continually seek new and differentiated product to champion and drive increased visitation. No additional budget would be anticipated for the promotion, rather the chance to promote and champion a new product of national significance would inevitably see the proposed GKNP receive significant ongoing coverage and promotion. This is anticipated to increase demand from these from international and domestic visitors."*

These statements include several assumptions critical for the valuation of future success of the GKNP:

- *the introduction of a premium experience*, whereas no proof is provided for what constitutes 'premium' and 'experience'. International tourism data and tourist behaviour studies show that experience is something that, among other factors, is highly individual, context specific and budget dependent. What determines premium remains unexplained, as the perception of something being perceived premium is highly dependent on past experiences and activities. Additionally, the positioning as premium product/service requires premium segment knowledge, expertise and management to introduce and maintain the premium level status/perception.
- *a feature in both Destination NSW's and Tourism Australia's marketing activity*, with no additional budget. Premium products/services need intensive and targeted communication and promotion. What is suggested is to 'piggy-back' on future, mostly generic activities of Destination NSW and Tourism Australia marketing activities. The shortcoming is that generic activities are not appropriate means to promote and support premium products/services.
- *to champion and drive increased visitation*, whereas no evidence is provided in the report on what should drive such increased visitation of the region.
- *... would inevitably see the proposed GKNP receive significant ongoing coverage and promotion. This is anticipated to increase demand from these from international and domestic visitors.* No evidence is provided for why it is inevitable that GKNP would receive significant and ongoing coverage and promotion. Similarly, the anticipation that domestic and international visitor numbers will increase in the region evaluated is also not supported by evidence.

It is undisputed that 'nature-based tourism' is a large and growing industry in NSW, Australia, and many other countries in the world. However, international studies show that the customer base targeted ("high-spend tourists seeking premium experiences") is highly differentiated, discerning and discriminating, national and international (with different nationalities and often with highly specific behaviour between cultures), from short-term to long-term, purchasing power, preferences, time availability, destination choice, activities, etc., and particularly with overseas visitors usually determined by a pre-set travel route and pre-decided experiences. As the generic term nature based tourism does not capture the highly differentiated market, it is not a suitable empirical foundation and measure for market segmentation.

The authors state (page 17) that

- *there is the "potential to increase both the length of stay for domestic visitors (with associated increased spend per visitor) but also to increase the share of the high value international visitor segment".*

No evidence is provided to support this claim. This assumption is rather critical, as visitor data and longitudinal studies on tourists' behaviour show an ongoing change in recent years (see for example data and studies published by UNWTO in recent years): duration per travel decreases, number of destinations visited per trip increases, and activities to be pursued and time required to do so are decisively shaping the destination selection (fun parks, nature parks, food, wine, Instagram opportunities, accessibility, time needed to travel to a particular destination, etc.).

Destinations close to National Park are part of the destination mix, but a National Park is also just one of a range of attractions in the mix. As travellers increasingly pursue more than one activity per day and do

not necessarily stay in close vicinity to the activity, these behaviours and changes would need to be accounted for when extrapolating future tourism demand.

With regard to tourism growth rates, the authors have correctly identified

- *middle-class Chinese visitors* (page 20)

which may support the argument of a higher international visitor growth rate.

However, Chinese tourists exhibit particular behavioural features when on holidays: they mostly travel in organised groups, are on a pre-paid budget, visit a multiplicity of destinations in a very short time period, and time spent at visitor locations is very short. Whereas the segment of Chinese tourists appears to be promising, it is questionable if and how Chines tourists could boost international overnight stays in the 5 LGA's, as they are not accessible under the constraints described above from any of the major tourism hubs in NSW.

Another statement,

'This higher growth rate assumption reflects the fact that the proposed GKNP will attract domestic and international visitors away from similar attractions in other parts of Australia' (page 20),

introduces an important aspect that is not considered in the EIA. The authors are obviously aware that GKNP will have a cannibalisation effect, attracting visitors away from current attractions, but do not consider cannibalisation effects in their EIA.

Furthermore, the authors state (page 21 and footnote 41):

- *"Given the location of the proposed GKNP, domestic overnight and international visitors would spend at least one night in the proposed GKNP region which is attributable to visiting one of the parks in the proposed GKNP",*

reenforcing this argument with (page 21, FN 41)

- *"This is consistent with Roy Morgan's finding that almost half of NPWS park visitors stated that the only reason for their trip was to visit a NSW NPWS park."*

However, important contexts presented in the Roy Morgan study have been omitted. In the 'Duration of visit and type of trip to a NPWS Park' section (Roy Morgan Report, page 20) states: "Chart I shows that almost nine in ten visits to NPWS parks were just for the day (87.5%). One in six visits were either overnight (5.7%) or for multiple nights (10.9%). And (page 21): "Chart J shows that almost half of NPWS park visitors stated that the only reason for their trip was to visit the NPWS park (45.6%)" ... with (page 21) "visitors claiming that their visit was the only reason for their trip was not evident across all NPWS Management Branches. The lift was only marked for visitors to parks in the Hunter Central Coast (35.5% to 48.4%), Blue Mountains (37.2% to 47.9%), Greater Sydney (38.7% to 55.6%), South Coast (15.9% to 39.3% and West Branches (20.3% to 45.2%)".

However, the general claim in the GKNP study, that almost half of NPWS park visitors will only have one reason for their trip, a visit to a NPWS park is misleading, as almost nine in ten visits to NPWS parks were just for the day (87.5%). In contrary, it strongly supports the argument, that half of the visitors are not unique visitors, but pursuing a mix of experiences, even on a one day trip.

Since inflated numbers are obviously used as multipliers in several of the calculations on tourism demand, the results presented appear not to be realistic with regard to the validity of future tourist numbers and types (daytrip, overnight, international) computed.

Furthermore, the authors anticipate:

- *'There will be an increase in visitor numbers in the first three years as the proposed GKNP is established and infrastructure built, as a result of an 'announcement effect' (page 22).*

This assumption is not evidenced at all but forms the basis for quantifying future tourism numbers and their spent in the EIA.

Tourism and Accommodation

Current accommodation in the 5 LGAs comprises 606 properties and 5,497 rooms. The corresponding numbers for the North Coast region, including the 5 LGAs, are 1,981 properties and 18,360 rooms (Tourism Research Australia TRA).

Considering visitor growth rates assumed in the GKNP study, with an increase of visitors by 18 % in year four after the establishment of the GKNP, and 63% after 14 years, the current accommodation infrastructure has to be enlarged by 63 % under current distribution of day-visitor, overnight-visitor and international visitor numbers. Shifts from day-visitor to overnight visitors would need to be accounted for additionally.

However, the availability of guest rooms is not evenly distributed in the region. The majority of properties and rooms is located in Coffs Harbour, with a share of 52% of all rooms in the 5 LGA regions, followed by Clarence Valley Shire with 19% of all rooms. From a North Coast regional perspective, Byron Bay and the Mid-Coast hold, with more than 3,000 rooms each, the highest number of rooms in the five LGAs.

Under the assumption to be able to drive higher spend tourism, the quality of accommodation available is certainly of equal, if not higher importance than room numbers. An assessment of the North Coast's Visitor Economy by Stafford Strategy (2020) categorises rooms in three quality classes (high, medium, low). Within the five LGAs under consideration, the distribution of rooms and their quality varies substantially, with Kempsey having only 4% of all rooms in the high quality rank (lowest of all 5 LGAs) and Nambucca with 13% (highest in the 5 LGAs). Medium accommodation quality in the 5 LGAs is between 50 and 60%, and low quality accommodation accounts for 30% and more across the 5 LGAs.

This points at an important structural problem with impact, if higher spend, longer stay tourists are to be attracted, as frequently stated in the GKNP study. Being serious about high quality tourism requires high quality accommodation offers, with building new higher quality accommodation and converting low quality offers into medium-high quality offers, and converting a substantial proportion of the medium offers into high quality offers.

Experiences in other, commonly called 'nature based' tourism destinations show, that the whole experience (activity, accommodation, food, quality of service, etc.) has to be attractive across all components/factors. Great accommodation with bad food and nothing to experience or vice-versa is increasingly not acceptable to tourists, as they purchase a package of experiences that is made up of different but complementing components. If one of these components does not meet expected standards, the overall experience is ranked down.

This structural problem is further re-enforced by the obvious ownership structure. Accommodation businesses in the five LGAs average from five to nine rooms, with the exception of Coffs Harbour with 15 rooms per accommodation property on average. Hence, most entities appear to be family owned/run businesses, with obvious restrictions concerning space and time allocated to the touristic venture. Family run accommodations are often of very high quality, with a touch of individuality (today another important component), but extending the business has its limits, personally, financially, and with regard to individual customer experience.

Given the growth in tourism numbers assumed in the GKNP study, it is rather unclear, where the additional accommodation facilities should come from and how new establishments would fit into the envisaged overall 'high-quality experience' of the park.

Calculating the lower boundary of the number of rooms required, based on the additional visitor numbers assumed in the GKNP study, an additional 1,000 rooms would need to be built in the 5 LGAs within the first 3 years after establishing the GKNP.

A total of 3,500 rooms would need to be built within the first 14 years, preferably in the less developed tourism LGAs, to be able to deliver on the promise to support economic growth in more remote parts of the LGAs concerned.

However, based on the assumptions of the GKNP study, a calculation of building costs in rural areas for motels/hotels/resorts rooms based on average cost calculations for building new guest accommodation in rural areas reveals at least the magnitude of additional private investment required for building additional accommodation under the assumptions of the GKNP study. Accommodation investment figures are based on the claim of the GKNP study to capture additional and higher per day expenditures.

Investment into accommodation (50% day/50% night guests, mixed star rating)

Type	+ 4 years on	+15 years on
Motel	$3,735,119	$9,147,352
3-Star	$44,024,608	$107,816,784
4-Star	$47,540,600	$116,427,491
5-Star	$60,180,244	$147,382,128
Sum	$155,480,572	$380,773,754

A healthy mix of accommodation types would include accommodation of all categories. In 'special experience destinations', as desired for GKNP, that mix is made up by 10% less than three star, 40% three star, 30% four star, and 20% five star accommodations, requiring a total investment into additional accommodation facilities of $ 100 – 150 million in the first four years and $ 250 – 350 million for the remaining time horizon (+10 years). These figures do not include investments into upgrading existing rooms, a further pre-requisite to be able to capture the higher spend by tourists envisaged in the GKNP study.

Hence, the private investment required to support the park is substantial. If and how it would materialise has not been considered in the GKNP study. On top of investments into new rooms, investments in private operations and infrastructure for commissioned experiences need to be considered.

As successful cases are often mentioned once in a while, it has to be noted that there is an array of not successful public investments into 'nature based' regional tourism. The most recent and prominent example is Tasmania's Northwest, the Dismal Swamp in the Tarkine. The public has invested into the development of experiences/attractions; however, it did not deliver on the expectation to become the heart of tourism in the far north-west. Tourism has not boomed and not any other significant investment in tourism infrastructure or tourism product has taken place since. (Circular Head Tourism Association). Now another infusion of public money is required to resurrect Dismal Swamp as a nature-based tourism attraction. However, the federal government has recently committed another $12.5 million to encourage more visitors to the far north-west. Most of the money will be used to completely revitalise the Dismal Swamp site and make it ready for a private investor to create, yet again, a gateway for the Far North-West, acting as a central base for accommodation and offering a range of visitor experiences (see ABC News, April 9th, 2023).

The content of this review reflects the personal expertise and opinion the author and does not necessarily the opinion of the institutions.