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"The Northern Professionals"

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WATER STORAGE DEVELOPMENT IN THE CAIRNS/ TNQ/ PENINSULA AUSTRALIA REGION
Appreciation of the Situation

Background

There are two major factors driving the need to expand water storages in the area:

1) The prospective needs of Cairns, for urban water supplies;
2) Water from Tinaroo Dam is now fully committed and further storage is needed if agricultural expansion is to continue.

Prospective Sources

1) North Johnstone Diversion to supplement Tinaroo
2) Nullinga
3) Lakeland (Palmer)

Pros & Cons

North Johnstone Diversion

Probably the most cost efficient and it will help meet both water supply needs of Cairns and future agricultural expansion, but:

- There are some environmental considerations and only preliminary engineering studies have been undertaken;
- At best, it will probably only yield about 30,000 ML per annum (current ex Tinaroo for agriculture about 150,000 ML).

Thus, the North Johnstone diversion is only a short-term solution.

Nullinga

Nullinga is not a highly efficient dam site but in the right location:

a) It will meet both the water supply needs of Cairns and future agricultural expansion;
b) Major agricultural support infrastructure is already available for distribution of water, transport and other support facilities in Mareeba.

Current price cost about $500 - $600m and yield about 70,000 ML per annum.

The problem is that the state government's Business Queensland Benefit Cost Assessment was highly negative.

Lakeland

Lakeland is probably a more efficient dam site than Nullinga but requires water to be pumped over a ridge but downhill from there providing some offsetting electricity generation. Current price cost is about $500 - $600m and yield about 70,000 ML per annum (ie. quite similar to Nullinga).

However, it does not meet the water supply needs of Cairns and involves major building of new service infrastructure.

It was given a more favourable benefit cost analysis than Nullinga by the RDA study.

Benefit Cost Analysis

However, if you compare the benefit cost analysis methodologies for Nullinga and Lakeland, they are quite different.

Nullinga adopts a methodology that in effect tests whether the potential users at this time can raise the capital to pay for the cost of the dam up front. (There are severe problems with this approach.)

Lakeland adopts a methodology of what receipts for water supply might be into the future (discounted to present values), plus what the boost to economic activity in the region would be.

If the Lakeland methodology was applied to Nullinga, it would probably come out positive also, and if the Nullinga methodology was applied to Lakeland, it would come out negative.

However, neither studies have really looked in depth at likely forward markets. Lakeland is based on an assumption the region's banana output could be expanded by about 40%

The Implications

Clearly, a much better appreciation needs to be gained of the relative merits of the various schemes so that the region maximises its opportunities. This really means looking in further depth, at the North Johnstone Diversion. The Nullinga benefit cost analysis needs to be carried out with more appropriate methodology so that there is a clearer picture of relative merits in a situation of funding being only available for one or the other (of Nullinga or Lakeland).

If both Nullinga and the Palmer are to be funded, there will be a need for a very strong exercise undertaken to sell, at national level, the justification for investing about $1bn in the region in expanding agricultural production and meeting Cairns' future urban water supply needs.

a) Painting the region's track record in expanding cropping in the north;

b) Convincing the public that the water resources in the north are predominantly in this region and soils are available for production (forget the Bradfield scheme);

c) Convincing the public that the markets will be there for the major expanded production both will bring.