

### 3. WET TROPICS WORLD HERITAGE AREA

#### 3.1 Description<sup>8</sup>

##### Location, size

The Wet Tropics World Heritage Area (hereafter called the Wet Tropics WHA) is located in north-east Queensland north of Townsville and adjacent to Cairns. The area is 9 000 km<sup>2</sup> in size. The area is not continuous as it excludes areas that have been cleared and includes only those areas of rainforest and associated natural vegetation considered of World Heritage status.

##### Major natural features

The Wet Tropics WHA includes the largest area of tropical rainforest and associated habitats on the Australian continent. The rainforests of the Wet Tropics WHA are of international significance as they contain plant species (many rare or threatened) representative of major stages in the earth's evolutionary history, particularly the development of angiosperms. The rainforests are habitat for rare or threatened marsupials and other animal species. The Wet Tropics WHA also includes landscapes of outstanding natural beauty.

##### History

The Wet Tropics WHA was inscribed onto the World Heritage List in 1988. The area includes land under tenure as National Park (29 per cent), State Forest (38 per cent), Timber Reserve (9 per cent), other reserves (1 per cent), leasehold (16 per cent), freehold (2 per cent) and vacant (6 per cent). Prior to listing as a World Heritage Area, these tenures were managed by government or private individuals for different purposes as allowed by the different tenures. Following World Heritage Listing of the area, the Commonwealth government prohibited commercial forestry in the area.

##### Management arrangements

The Wet Tropics WHA has the most complex mixture of land tenures and ownerships of any World Heritage Area in Australia. The Queensland Government has tenure over the majority of public lands; there is some Commonwealth freehold title; 14 Local Authorities have jurisdiction over parts of the Wet Tropics; and there are 91 freehold and 110 leasehold parcels of land. The Commonwealth Government has power to prohibit activities that may threaten World Heritage values (under the *World Heritage Properties Conservation Act, 1983*). Management of the overall area has been established through agreement by the Commonwealth and Queensland Governments for joint management and funding. The Wet Tropics Management Authority (WTMA) has been established under Queensland legislation and is in the process of developing the first Management Plan for the area. Day-to-day management remains with the organisations with responsibilities for the land tenures, namely the Queensland Department of Environment and Heritage (QDEH), the Queensland Forest Service (QFS) and other State and local government authorities.

##### Management objectives

The Wet Tropics Management Authority has adopted the following as its primary goal for the Wet Tropics WHA. 'To provide for the implementation of Australia's international duty for the protection, conservation, presentation, rehabilitation and transmission to future generations of the Wet Tropics of Queensland World Heritage Area, within the meaning of the World Heritage Convention'.

##### Management funding

Funding for the Wet Tropics WHA is provided by the Commonwealth and Queensland Governments. In 1991-92, an amount of \$8.36 million was spent by the WTMA on capital works and recurrent costs. The Commonwealth government provided \$6.13 million of this and the Queensland government contributed \$2.23 million. In addition, the agencies with day-to-day management responsibilities fund some management from their budgets. The two Queensland Government agencies with greatest responsibility are the QDEH and the

<sup>8</sup> Information for this section is drawn from the *Wet Tropics Plan: Strategic Directions*, WTMA, 1992 and personal communication from WTMA staff.

QFS and together these agencies spent \$3.69 million on management in 1991-92. The total management funding for the Wet Tropics WHA was therefore \$12.05 million in 1991-92.

Both the Commonwealth and Queensland governments fund the majority of management budgets from consolidated revenue. There is no entry fee to the Wet Tropics WHA as such but both the QDEH and the QFS have some revenue raising programs in the form of fees for camping and commercial tourist operations.

### Major uses

The relatively recent declaration of the Wet Tropics WHA over land tenures formerly under a range of different uses means that land use is in a transitional stage. The initial Wet Tropics Plan is still under development and so details of what uses are considered compatible with World Heritage status have not been finalised. A major decision has been taken with the prohibition of commercial forestry, which was formerly the primary use of State Forests and Timber Reserves that cover 47 per cent of the area.

The primary uses of the World Heritage Area are nature conservation and the conservation of sites of Aboriginal and non-Aboriginal cultural heritage. Contemporary Aboriginal use of and association with the area continues.

The major direct uses are tourism and recreation. These uses are discussed in more detail in section 3.2 below.

Other continuing uses are defence training, mining, quarrying, telecommunications, power generation and transmission, community water supplies and transport (roads and railway lines). People live on leasehold and freehold land within the area. Those on freehold and leasehold land continue to undertake grazing and agriculture.

According to the *Wet Tropics Plan: Strategic Directions* issued by the WTMA, 'There are a number of existing and proposed uses of resources within the Wet Tropics WHA which may be inappropriate for the conservation of World Heritage values. These include:

- Grazing, including Lands Department grazing leases, and Queensland Forest Service or DEH stock grazing permits;
- Aboriginal hunting and plant harvesting,
- Defence use;
- Mining (mainly tin and gold);
- Quarries;
- Maintenance tree felling and disposal;
- Commercial fishing;
- Scientific collecting;
- Harvesting of other plant products (seeds, cones, leaves, vines);
- Water harvesting; and;
- Refuse dumps' (WTMA, 1992, p74).

The *Wet Tropics Plan: Strategic Directions* also states that additional facilities for communications, electricity distribution, transport, and water supply etc. should be located outside the WHA where possible and that upgrading of existing facilities should be subject to environmental impact assessment. The document also suggests a need for management of tourism and recreational use.

The identification of financial and economic values of the Wet Tropics WHA is complicated by the fact that decisions have not yet been taken on which direct uses will continue within the WHA and which uses will be considered incompatible and reduced in scope or phased out. Thus, while it is possible to construct a list of current uses and attach financial values where these have been compiled, this might not reflect the situation in the short term future. In the case of economic values, if a decision is made that an existing use is incompatible with World Heritage status, the net benefits of that use become an opportunity cost of the World Heritage Area not an additional net benefit.

Table 3.6 below summarises uses and financial and economic values of the Wet Tropics WHA. It is somewhat different from the standard used in this report for all other protected areas, due to the degree of uncertainty over what uses and levels of use will be permitted in the Wet Tropics WHA once the initial Wet Tropics Plan is finalised. Unfortunately, very few of the entries have dollar values attached because information has not been compiled on financial values and the economic analysis necessary to estimate economic values has not been undertaken.

An annual value for gross revenue from mining of \$25 million has been included but is subject to some uncertainty (NEC 1988). The value is derived from a report produced in 1988 which attempted to project future mining revenues, but it is unknown whether the projections have been achieved. The figure should be treated as an order-of-magnitude estimate only.

As noted in appendix 2, the values of water catchment services are likely to be significant. No information on the financial or economic values of water catchment services has been included in this report.

### **3.2 Wet Tropics WHA tourism and recreation**

This section addresses all tourism and recreation visits to the Wet Tropics WHA by Australian and international tourists and local residents who make recreational day trips to the Wet Tropics WHA. The Wet Tropics WHA is a large area made up of National Parks and other forested areas and extends from north of Townsville to the Bloomfield River. There are many entry points and many roads and walking tracks providing access.

Tourism and recreation in the Wet Tropics WHA has recently been described in a report by the National Centre for Studies in Travel and Tourism (NCST&T 1992). This report drew on published and unpublished information from the Queensland Visitors Survey plus a survey of tourist operators and a survey of tourists at Cairns Airport. The majority of visits (70 per cent) are made in private vehicles by local residents, tourists who have driven their own vehicles to North Queensland and tourists who rent vehicles locally. In addition, there are commercial tours operating in the area: bus tours, the famous Kuranda rail tour, river cruises and whitewater rafting. In February 1992, there were 97 commercial tour operations within the Wet Tropics WHA.

The vast majority of visitors stay or live in the coastal towns and cities adjacent to the WHA and visit on day trips<sup>9</sup>. Of the 97 different tours offered in 1992, 63 per cent were half or one day tours and these accounted for 96 per cent of tour capacity. The following table, 3.1, summarises 'indicative estimates of the numbers of visitors to the Wet Tropics WHA in 1991' (NCST&T 1992, p. 64). The table actually shows estimated visitor days.

The trends for tourism in the Townsville and Cairns regions of Queensland have been of significant growth, especially in the number of international visitors, in recent years. During the years 1985 to 1990, domestic visits increased by seven per cent per annum in the Townsville region and five per cent per annum in the Cairns region. In the same period, international visits have increased at an average of 19 per cent per annum for the Townsville region and 28 per cent per annum for the Cairns region. Future national trends for tourism growth are expected to be reflected or bettered in this area (NCST&T 1992).

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<sup>9</sup> This is the same population of tourists and residents from which visitors to the Great Barrier Reef is drawn. The GBR extends further south and is also adjacent to the Mackay and Rockhampton regions.

Table 3.1 Visitor Numbers Wet Tropics WHA

Market segments by transport	Number of visitor days
Residents on commercial tours	87 000
Tourists* on commercial tours	719 000
Residents using own vehicle	820 000
Tourists using own vehicle	845 500
Tourists using rented vehicle	185 600
Total	2 657 100
<i>Segment by commercial/private</i>	
Commercial tours: residents and tourists	806 000
Private visits: residents and tourists	1 851 100
<i>Segment by origin</i>	
Residents	907 000
Tourists	1 750 100

\* Tourist is used in the conventional sense of a person travelling at least 40 km and staying for at least one night away from their usual place of residence.

Source: NCST&T 1992, p. 64.

### Financial values

The NCST&T (1992) reported an amount of \$92 million was spent on private and commercial trips within the Wet Tropics WHA in 1991. An additional expenditure of \$285 million for two days stay in the adjacent region was estimated in this present study. The total direct expenditure in the region is therefore estimated at \$377 million. Applying a multiplier of 1.7 (Driml 1987a) gives an estimated value for direct and indirect output effects on the Cairns and Townsville regions of \$678 million. These estimates are order-of-magnitude only.

### Calculating financial values

The financial value of all tourism to the Cairns and Townsville Regions, in which the Wet Tropics WHA is located is shown in table 3.2. This data is from reports of the Queensland Tourist and Travel Corporation (QTTC). Travel to the regions is not included. Additional expenditure by local residents of these regions making day trips was estimated at \$68.5 million in 1990 (QTTC 1991b). Expenditure attributable to the Wet Tropics WHA is a subset of these values.

The measure of the financial value of tourism and recreational trips by local residents to the Wet Tropics is expenditure by tourists and local residents who visit. Expenditure that can be attributed to the Wet Tropics is made up of:

- (a) fares and expenditure on commercial tours
- (b) costs of private trips
- (c) a component of accommodation and expenditure by tourists in the adjacent region
- (d) a component of expenditure on travel to North Queensland.

Components (a) and (b) have been estimated by the NCST&T in their 1992 report, see table 3.3.

Table 3.2 Tourist Numbers and Expenditure, Cairns and Townsville Regions (1991-92)

	Visitor nights	Tourists in commercial accommodation (\$ million)	Tourists staying with friends and relatives (\$ million)	Total expenditure (\$ million)
All tourists	13 402 700	923.1	187.5	1110.6
Tourists on Holiday/Recreation	11 723 500	794.0	162.5	956.5

Sources: Queensland Visitor Survey 1991-92 (QTTC 1992), Survey of visitors staying with friends and relatives in Queensland 1989 and 1990 (QTTC 1991b), 1990 data inflated to 1991-92 dollars.

Table 3.3 Visitor Expenditure Wet Tropics WHA

Market segments by transport	Visitors	Average expenditure \$ per day	Total expenditure (\$ million)
<i>Commercial tour passengers</i>			
Local residents	87 000	\$50.00	\$4.35
Tourists	719 000	\$50.00	\$35.95
<i>Visitors using own/rented vehicles</i>			
Local residents	820 000	\$15.60	\$12.77
<i>Tourists using</i>			
Private vehicle	845 500	\$31.00	\$26.21
Rented vehicle	185 600	\$70.40	\$13.07
<b>Total</b>	<b>2 657 100</b>	<b>\$34.80</b>	<b>\$92.35</b>

Source: NCST&T 1992, p. 90.

The NCST&T point out that the estimated amount of \$92 million spent on trips within the Wet Tropics WHA is less than eight per cent of regional tourist and daytripping expenditure and that the commercial tour component is less than four per cent of total tourist expenditure for the Townsville and Cairns regions.

The NCST&T consider this to be 'an incomplete picture of the significance of the Wet Tropics to the regional tourism industry and economy' (p. 91) as it does not include other visitor expenditure that can be attributed to the attraction of the Wet Tropics WHA.

A survey conducted by the NCST&T at Cairns Airport found that 71 per cent of respondents participated in scenic drives (the Wet Tropics WHA would at least be background to these) and 21 per cent participated in bushwalking and rafting. Fifty-one per cent of respondents found rainforest/jungle/wilderness to be a most appealing feature of the region. It is quite possible that the Wet Tropics WHA is an attraction to people who do not actually visit it directly.

Despite this, the value of components (c) and (d) are not known as tourists have not been asked what amount of money or what proportion of their total trip expenditure they would attribute to their visits to the Wet Tropics WHA.

It is important to note that the NCST&T did not attempt any estimation of additional expenditure by tourists, possibly because they did not consider there was sufficient good data on which to base an estimate. The following estimate made for this report should be interpreted in the light of this inadequate data base, as an order-of-magnitude estimate only.

An estimate of the expenditure by tourists on accommodation and other expenses in North Queensland associated with their visits to the Wet Tropics WHA has been made on the same basis used for the Great Barrier Reef, of assuming tourists spend one day before and one day after their trip in the adjacent area. In the case of the Wet Tropics WHA, figures are only available for visitor days, not visitors, and so this may overestimate expenditure by those tourists who visit for more than one day.

The number of visitor days spent by tourists was estimated at 1 750 100 (table 3.1). An average daily expenditure of \$81.50 by tourists visiting for holiday/recreation has been derived from QTTC data reported in table 3.2 above. The total additional expenditure is therefore \$142.6 million for one day and \$285.2 million for two days.

Table 3.4 Estimated Financial Value of Tourism and Recreation Wet Tropics WHA

Expenditure category	(\$ million)
Direct expenditure in Wet Tropics WHA	92
Extra two days in region	285
<b>Total direct expenditure without travel</b>	<b>377</b>

The total direct expenditure in the region of \$377 million, that is without travel to the region, has a multiplier effect in the regional economy. Applying a multiplier of 1.7 (after Driml 1987a) gives an estimated value for direct and indirect output effects on the Cairns and Townsville regions of \$678 million. It must be reiterated that these estimates are order-of-magnitude only.

#### **Financial values of tourism in the Daintree/Cape Tribulation area**

It is interesting to note the method and results of a study of tourism in the Daintree/Cape Tribulation area of the Wet Tropics WHA (Cummings et al. 1992). In that study, the expenditure by 223 000 tourists who visit the area north of the Daintree River was identified by interviews with tourist operators and tourists. The researchers recognised that tourists who visited the study area would need to spend some additional nights in the Far North region. They assumed that visitors would stay one day and one night either side of their visit to Daintree/Cape Tribulation and calculated the expenditure that would involve. The results are shown in table 3.5. Travel costs to the region were not included. Direct expenditure in the Daintree/Cape Tribulation area and on tours to the area was measured at \$17.89 million. The direct expenditure attributed to extra time spent in the Far North region was \$26.6 million; together these make \$44.5 million. Cummings et al. calculated flow-on effects based on a multiplier of 2.1. The total direct and indirect output effect was therefore estimated at \$76.39 million.

The results of the Cummings et al. study are consistent with the financial values for the entire Wet Tropics WHA calculated above, on a proportional basis.

Table 3.5 Visitor Expenditure and Estimates of Additional Financial Impacts, Daintree/Cape Tribulation

Type	Direct	Flow on	Extra 2	Flow on	Total
		effects	nights/2days	effects	
	(\$ m)	(\$ m)	(\$ m)	(\$ m)	(\$ m)
Accommodation	1.65	1.26	14.42	11.03	28.36
Food & beverage	4.38	2.55	11.64	8.90	27.47
Local	2.88	2.21	-	-	5.09
tours/attractions					
Safari/4WD tours	7.23	5.56	-	-	12.79
Other expenditure	1.75	0.93	-	-	2.68
<b>Total</b>	<b>17.89</b>	<b>12.51</b>	<b>26.06</b>	<b>19.93</b>	<b>76.39</b>

Source Cummings et al. 1992, p. ii.

TABLE 3.6 WET TROPICS WORLD HERITAGE AREA

<i>USES</i>	<i>DESCRIPTION</i>	<i>GROSS FINANCIAL VALUES</i>	<i>ECONOMIC VALUES</i>
<b>PRIMARY USES</b>			
Nature Conservation Conservation of cultural features Aboriginal contemporary use	9000 km <sup>2</sup> of relatively undisturbed natural environment. Aboriginal cultural sites. Historical sites.	Nil, however these attributes provide the resource base for potentially sustainable direct uses which generate financial values	These attributes provide the resource base for economic values of potentially sustainable direct uses <b>plus</b> the economic values of non-market indirect uses  Economic values of non-market indirect uses have not been measured for the Wet Tropics WHA.
<b>COMPATIBLE DIRECT USES</b>			
Tourism and recreation	1.8 million visits by tourists, 0.9 million visits by local, residents, in 1991	Direct: \$377 million (1991-92)	not known
Highways, roads, railways	1500 km roads	not known	not known
Telecommunications	Microwave and radio repeaters, fibre optic cables, radio, TV broadcast facilities	not known	not known
Water catchment services	21 community water supplies	not known	not known
Electricity generation and distribution	Tully River(Kareeya) and Barron Gorge power stations, main grid and feeder lines	not known	not known



TABLE 3.6 WET TROPICS WORLD HERITAGE AREA (CONTINUED)

<i>USES</i>	<i>DESCRIPTION</i>	<i>GROSS FINANCIAL VALUES</i>	<i>ECONOMIC VALUES</i>
DIRECT USES UNDER REVIEW		not known	not known
Grazing	55 leases and permits over 103 000 ha	not known	not known
Aboriginal hunting and plant harvesting	By an unspecified number of Aboriginal people for personal use and artefact sale	not known	not known
Defence training	16 470 ha on freehold and leasehold land	not known	not known
Mining	10 leases, 21 claims	\$25 million (1988)	not known
Quarries	37 gravel quarries	not known	not known
Maintenance tree felling and disposal	extent not known	not known	not known
Commercial fishing	extent not known	not known	not known
Scientific collecting	extent not known	not known	not known
Harvesting plant products	extent not known	not known	not known
Refuse dumps	extent not known	not known	not known