

4 Identification of Town Resource Clusters

Identification of TRCs

Town Resource Clusters (TRCs) represent clusters of mutually interdependent towns or communities which have a clear relationship to a specific geographic region or area of marine resource use.

The identification of TRCs was based on the homeports of commercial fishing businesses because it was considered that much of the business expenditure, the residential location of employees, the household expenditure patterns of employees and the use of social infrastructure services among employees would centre around the homeports of fishing businesses.

An examination of all homeports of fishing businesses as identified in the survey questionnaire indicated that the majority of fishing businesses were located in major regional and sub-regional centres on the Queensland coast. In some instances suburban localities within the regional centre were identified as the homeport. However, suburb locations were classified as part of an identified regional centre on the basis of the Australian Bureau of Statistics definition of urban centres and localities.

Table 4.1 identifies the major regional centres which were used to define the 22 TRCs. Where the homeport of a fishing business was not located within a major regional centre, the location of business expenditure and the residential town location of the business operator was used to classify the business within a TRC. Many of the TRCs consisted of a major regional centre in which the majority of fishing businesses were located and smaller towns and communities surrounding the regional centre in which other fishing businesses were also located.

As shown in Table 4.1, this procedure classified 96% of fishing businesses within a TRC. Of the remaining fishing businesses, 34 (3%) had homeports in New South Wales and 10 (1%) were unable to be classified within a TRC. A fishing business could not be classified primarily due to no homeport being reported at the time of the interview.

Once the initial TRCs had been defined using information about the location of the homeports of fishing businesses, the location of employee hometowns were also located within these TRCs. This was undertaken using a similar procedure used in locating the homeports of fishing businesses. Where the employee hometown was not a homeport within a TRC as previously identified, the town location of household expenditure and use of social infrastructure services was examined in locating the employee hometown within a TRC.

Table 4.2 shows that 93% of all employee hometowns could be located within the 22 TRCs. An additional 37 (2%) employees had their hometown in NSW, while 66 (4%) employees were unclassifiable within a specific TRC. The primary reason that employees could not be classified within a TRC was that no hometown was given at the time of the interview.

Table 4.1. Commercial Fishing Businesses in TRCs

TRC	Frequency	Percent
Karumba	13	1.3
Weipa	7	0.7
Thursday Island	8	0.8
Cooktown	6	0.6
Port Douglas	14	1.4
Cairns	79	7.9
Innisfail	55	5.5
Lucinda	15	1.5
Townsville	63	6.3
Ayr	7	0.7
Bowen	29	2.9
Airlie Beach	6	0.6
Mackay	49	4.9
Yeppoon	42	4.2
Gladstone	55	5.5
Bundaberg	128	12.7
Hervey Bay	46	4.6
Maryborough	15	1.5
Tin Can Bay	32	3.2
Mooloolaba	93	9.3
Brisbane	158	15.7
Southport	40	4.0
Total Classifiable	960	95.6
New South Wales	34	3.4
Unclassifiable	10	1.0
Total Fishers	1004	100.0

Note: Unclassifiable includes respondents who did not identify a homeport.

Table 4.2 Number of Employees within TRCs

TRC	Frequency	Percent
Karumba	15	1.0
Weipa	6	0.4
Thursday Island	16	1.0
Cooktown	16	1.0
Port Douglas	27	1.8
Cairns	97	6.3
Innisfail	82	5.3
Lucinda	20	1.3
Townsville	77	5.0
Ayr	17	1.1
Bowen	43	2.8
Airlie Beach	14	0.9
Mackay	119	7.7
Yeppoon	61	4.0
Gladstone	86	5.6
Bundaberg	195	12.7
Hervey Bay	60	3.9
Maryborough	24	1.6
Tin Can Bay	29	1.9
Mooloolaba	144	9.4
Brisbane	236	15.3
Southport	52	3.4
Total Classifiable	1,436	93.3
New South Wales	37	2.4
Unclassifiable	66	4.3
Total Employees	1,539	100.0

Note: Unclassifiable includes respondents who did not identify a hometown

The level of interdependence among the 22 TRCs is shown in the TRC connectivity matrix presented in Table 4.3. For each TRC represented in the columns of the matrix, the values represent the mean percentage across industry expenditure, household expenditure, family employment and educational locations. Higher values indicate higher levels of expenditure, employment and use of educational services occurring within the TRC. The diagonal of the connectivity matrix indicates high levels of expenditure, employment and service use occurring within each of the TRCs. In some cases, values adjacent to the diagonal are also relatively high, indicating some level of dependence on geographically adjacent TRCs.

For instance, Port Douglas and Innisfail show some dependence on Cairns, while Lucinda and Ayr show some dependence on Townsville.

The Sum Link column is the sum of each of the rows in the matrix and provides an indication of TRCs from which many other TRCs source goods and services. Cairns is one of the major higher order coastal TRCs with many TRCs in the north from Karumba to Innisfail dependent on the Cairns TRC. Townsville is an additional higher order centre servicing TRCs from Lucinda to Ayr.

Table 4.3. TRC Connectivity Matrix

TRCs	Sum Link	Karumba	Weipa	Thursday Is.	Cooktown	Port Douglas	Cairns	Innisfail	Lucinda	Townsville	Ayr	Bowen
Karumba	67.4	65.6	0.0	0.0	0.0	1.1	0.2	0.1	0.0	0.2	0.0	0.0
Weipa	80.3	1.0	77.3	0.0	0.0	1.4	0.4	0.0	0.0	0.0	0.0	0.0
Thursday Island	79.4	0.0	0.0	79.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Cooktown	73.0	0.0	0.0	0.0	71.7	0.5	0.2	0.1	0.0	0.2	0.0	0.0
Port Douglas	71.6	0.0	0.0	0.0	0.0	71.0	0.3	0.0	0.0	0.0	0.0	0.0
Cairns	262.7	18.7	22.7	19.8	21.5	20.4	94.3	16.5	2.5	7.1	0.0	1.5
Innisfail	89.1	0.0	0.0	0.0	0.0	0.0	0.1	77.2	2.3	0.3	0.0	0.7
Lucinda	78.8	0.0	0.0	0.0	0.0	0.4	0.0	1.0	77.1	0.0	0.0	0.0
Townsville	137.6	8.2	0.0	0.0	2.3	0.0	0.6	0.9	11.3	85.5	11.2	3.4
Ayr	83.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	83.5	0.2
Bowen	93.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	87.4
Airlie Beach	91.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5
Mackay	94.3	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.7
Yeppoon	86.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.3
Gladstone	99.5	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.5	0.0	0.3
Bundaberg	94.9	0.0	0.0	0.0	0.0	0.9	0.1	0.2	2.1	0.2	0.0	0.3
Hervey Bay	94.6	0.0	0.0	0.0	0.0	0.8	0.2	0.0	0.0	0.4	0.0	0.0
Maryborough	86.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tin Can Bay	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mooloolaba	101.5	2.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brisbane	135.1	0.3	0.0	1.1	4.0	1.7	1.6	1.0	2.1	1.8	1.1	3.1
Southport	88.1	1.9	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
NSW	7.8	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.2	0.0	1.0
Other Locations	48.6	2.1	0.0	0.0	0.2	0.0	0.9	1.9	2.4	2.7	4.2	0.7

TRCs	Sum Link	Airlie Beach	Mackay	Yeppoon	Gladstone	Bundaberg	Hervey Bay	Maryborough	Tin Can Bay	Mooloolaba	Brisbane	Southport
Karumba	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Weipa	80.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Thursday Island	79.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cooktown	73.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Port Douglas	71.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Cairns	262.7	0.0	2.2	1.8	0.2	5.9	4.9	0.7	7.9	3.6	10.1	0.4
Innisfail	89.1	0.0	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	5.8
Lucinda	78.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Townsville	137.6	0.0	3.0	1.0	1.4	1.1	0.5	0.0	4.0	1.0	0.5	1.5
Ayr	83.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bowen	93.2	0.5	0.3	0.0	0.5	0.3	0.3	0.0	0.4	0.4	0.6	2.0
Airlie Beach	91.1	90.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mackay	94.3	0.6	89.6	0.0	0.8	0.7	0.1	0.0	0.0	0.0	0.3	0.9
Yeppoon	86.3	0.0	0.8	83.1	0.5	0.8	0.1	0.1	0.0	0.3	0.0	0.0
Gladstone	99.5	0.0	0.1	0.2	89.0	1.3	0.9	1.5	1.0	3.2	0.7	0.2
Bundaberg	94.9	0.0	0.1	0.0	1.6	85.5	0.4	1.2	1.2	0.4	0.4	0.2
Hervey Bay	94.6	0.0	0.0	0.0	0.0	0.6	87.1	3.4	1.3	0.3	0.6	0.2
Maryborough	86.2	0.0	0.0	0.0	0.0	0.0	0.5	83.6	2.0	0.0	0.0	0.0
Tin Can Bay	55.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	53.3	0.3	0.6	0.0
Mooloolaba	101.5	0.0	0.0	0.2	0.2	0.0	0.1	1.3	15.2	81.4	0.6	0.2
Brisbane	135.1	4.5	1.0	4.5	3.2	2.2	2.5	5.3	3.9	4.1	83.2	3.1
Southport	88.1	0.0	0.3	0.1	0.0	0.2	0.1	0.4	0.4	1.0	1.2	81.0
NSW	7.8	0.0	0.1	0.0	0.2	0.2	1.1	0.0	0.9	0.5	0.2	2.7
Other	48.6	4.3	1.4	7.2	2.3	1.2	1.2	2.0	8.6	2.9	0.8	1.6



