



**NGATI AWA**

Department of Labour  
TE TARI MAHI



# **UNDERSTANDING REGIONAL LABOUR MARKETS**

## **- NGATI AWA CASE STUDY**

### **EXECUTIVE SUMMARY**

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## 1) Purpose

This executive summary comes from a report on a project that examines labour market conditions for the Ngati Awa Iwi, as well as for Eastern Bay of Plenty Maori generally. The project also involved developing a set of tools which may help the iwi to develop a more in-depth understanding of its labour market and to develop its own capacity to conduct further analysis.

The project and report were jointly undertaken by Ngati Awa and the Department of Labour. They resulted in the creation of several tools that can be used by Ngati Awa to develop its on-going analysis and decision-making. The tools will also be made available to other groups and regions wanting to understand and improve their labour market prospects.

## Key points

Key findings of the report are:

- Maori enjoyed above average increases in employment/ decreases in unemployment between 2000 and 2005. But while disparities with non-Maori have reduced, higher than average Maori unemployment rates remain.
- The Bay of Plenty compares unfavourably with the rest of the country in terms of labour market indicators such as the unemployment rate. But it has started to catch up. The Eastern Bay of Plenty is lagging behind the wider Bay of Plenty region in terms of employment growth.
- Ngati Awa rates of employment and unemployment are similar to those for Maori as a whole. But they are better than those for Maori in the Eastern Bay of Plenty and the wider region.
- The number of people receiving unemployment benefits in the Eastern Bay of Plenty region has declined in the last three years, but Maori still represent a disproportionate share of those on unemployment benefits in this region.
- Bay of Plenty hourly wage rates are lower than the national average, while worker turnover rates - another possible indicator of workplace quality - are higher than average.
- Compared to all Maori, Ngati Awa has relatively high educational achievement levels. However, several important areas of study in terms of job opportunities, such as engineering and information technology, are not as commonly studied as they are for non-Maori.
- At the national level, the types of capital investments owned by Maori and the skills being developed by Maori appear to be moving in different directions. Capital investment is more focused on the primary sector (e.g. agriculture and forestry), while skill development has been targeted to the services sector.
- In the Eastern Bay of Plenty there appears to be a shortage of lower-skilled workers, in the face of relatively high unemployment rates. This suggests a

possible mismatch of required skills and people's capabilities at the lower end of the labour market.

- There was a decline in the number of people employed in the education, and wood and paper industries between 2001 and 2005, while numbers employed in dairy, horticulture and forestry remained steady. In contrast, more people were employed in the accommodation, machinery manufacture, food and beverage, and livestock sectors.
- The outlook in the wood and wood processing, beef and education sectors is for modest employment growth. However, analysts are more upbeat about growth prospects in some parts of the horticulture industry, niche dairy, tourism and social services.
- Several occupational groups were identified in the report as being prominent in the local economy *and* as being associated with industries that Ngati Awa has a specific interest in. These key occupations include; specialised managers, animal producers, nurses, teachers, caregivers, builders, pulp and paper workers, various trades workers, machinery mechanics and social workers. Most of these occupations appear to be in shortage nationally.
- Most of these key occupation groups experienced above average employment growth between 2000 and 2005, except pulp and paper workers, who experienced a decline in employment. This is a concern as a high proportion of pulp and paper workers Maori are, and a relatively high share of all employees in the local economy work in the pulp and paper businesses.
- Nationally, about half of those working in the key occupations in 2001 held post-secondary school qualifications. However, only about 25% of Eastern Bay of Plenty Ngati Awa, and 16% of the Eastern Bay of Plenty Maori working age population, had post-secondary school qualifications. This highlights the need for an increase in educational qualifications if Ngati Awa want to move into these key occupations.
- Generally, all of the key occupation groups have proportionately fewer Maori in them compared with the national average of about 11% in 2001.
- Four occupations experienced growth in job vacancies in Eastern Bay of Plenty between 2001 and 2005; caregiver, social worker, electrician and machinery mechanic. This may be due to either an increase in the number of such jobs available in the region or a decline in the number of people qualified for these positions.
- Training courses in the Bay of Plenty have been run recently or are currently being run for most high-demand occupations. There may be scope for a larger number of relevant courses to be run locally.
- Compared to other studies, the strength of this project's outcomes lies in the detail of the analysis (which is beyond the scope of the key points highlighted here). In order to track the results of this project on an ongoing basis, a

range of labour market information tools have been developed on a trial basis. Additional tools are in development.

## 2) Background

In 2006, the Department of Labour worked with the Ngati Awa Maori iwi based in the Eastern Bay of Plenty to investigate the local labour market conditions for Ngati Awa. The objective was to develop a 'hands-on' approach to labour market information which would explore the differences in labour market conditions between sub regions that are combined to form larger geographical regions within New Zealand.

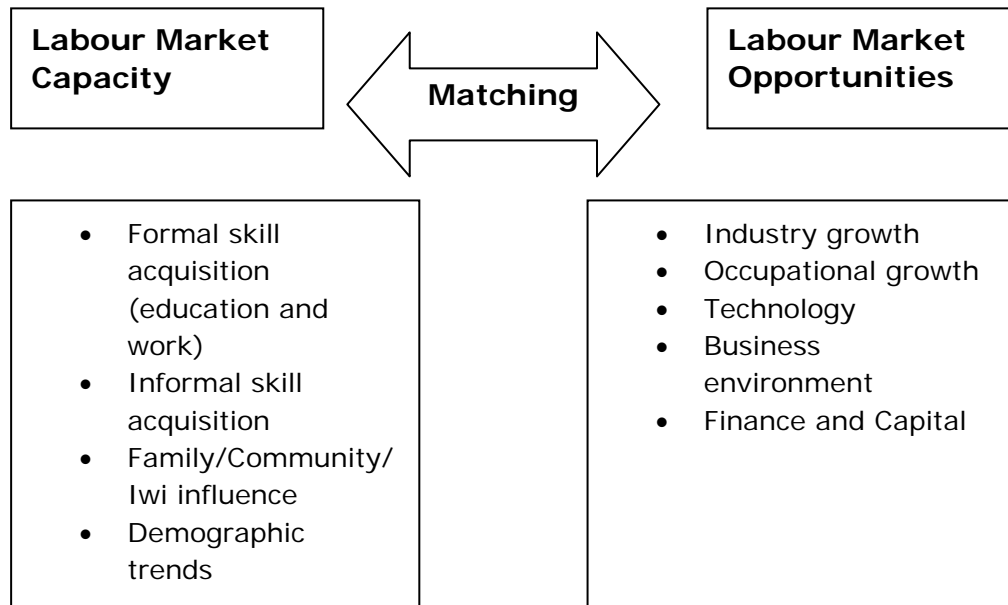
The Department of Labour met leaders of Te Runanga o Ngati Awa based in Whakatane in April 2006. The leadership of Ngati Awa at an early stage identified several opportunities to use the Department of Labour's labour market knowledge to help it meet a number of the Iwi's strategic goals. One key requirement of the project from Ngati Awa's perspective was to gain access to labour market information that is useful, relevant and has a practical application across the various entities and businesses of the Iwi. Both parties want to continue to develop the relationship through the practical transfer of knowledge and skills from the Department of Labour to Ngati Awa. The project helped create an ongoing relationship between the Chairman of Te Runanga o Ngati Awa and the Secretary of Labour.

*Development Ngati Awa*, the social arm of Te Runanga o Ngati Awa, is currently tasked with the development of a 25 year strategy. A key aspect of the strategy is improving the skills and well-being of Maori through increased education. This report helps connect the Ngati Awa Education and Cultural Strategies with the labour market. The project also provides snapshots of industries, and their growth and performance within the Eastern Bay of Plenty and the Bay of Plenty regions, compared with the national position. So it helps Ngati Awa focus its labour market strategy on the management and investment of the Iwi's financial and capital assets.

The working hypothesis is that broadly speaking the educational and skills development of Maori is not aligned to the investments and assets owned by Maori. The Maori asset base is mainly focussed on the primary and tradeable sectors, while Maori people are increasingly employed in the domestic and service sectors. Moreover, at the local level it would appear that there is a growing shortage of labour at the lower end of the labour market, despite relatively high levels of unemployment, in particular among Maori people. This hints at a labour market matching problem at the local level.

In essence, through this project Ngati Awa seeks to identify information and develop analytical capacity that will help it improve the skills and capabilities of its people, and improve the performance and value of its investments and assets.

Figure 1: Human Capability Diagram



The report follows the structure of the diagram shown above (*Figure 1*). This framework is designed to convey the important conceptual basis behind the linking of human capabilities with demand opportunities in the job market.

'Capacity' or 'capability' refers to the supply side of the labour market. It can be referred to as *human capital* – those characteristics, skills and abilities which can enhance participation in work and lift its value. Some of this human capital is driven by demographics such as gender and ethnicity. Other areas of human capital can be improved and adapted to some extent, such as skills and education, so it is mainly these elements that this report focuses on. Capacity information is usually identified in terms of qualifications such as degrees, or in the occupations people are employed in such as nursing.

'Opportunities' represents the demand side of the labour market. Demand can be subject to changes in, for example, technology and consumer preferences, and as businesses rise and fall, new opportunities can be created. Opportunity data can be expressed in industry terms, such as forestry, dairy, tourism and aged care.

'Matching' is the concept of bringing together supply and demand. It is possible to measure matching at a regional level through observations of recruitment activity, via job vacancies. Job vacancies are the mechanism which bring employers and potential employees together to meet changes in supply and demand.

It is important to note that this framework also demonstrates that Ngati Awa is in a pivotal position, as it has the means to influence both labour market capacity and opportunities in its region and community.

### **3 A summary of the main report**

#### **3.1) Context: Labour Market Participation and Productivity**

We start by setting the scene with an overview of Maori and Ngati Awa in the New Zealand labour market, followed by a summary of readily available regional and local labour market information.

Since 2001, more Maori are in work, fewer are unemployed, and fewer are outside the labour force. This has contributed to reducing disparities between Maori and non-Maori over the past few years. However, Maori employment indicators remain worse than those for non-Maori, and they are still over-represented in terms of the number who are unemployed.

The overall Bay of Plenty region has below average labour market outcomes but has started to catch-up in recent years. However, there are considerable sub-regional differences in the Bay of Plenty and it is important to separate out the Eastern Bay of Plenty to ascertain a local picture. The Eastern Bay of Plenty, where nearly half of all Ngati Awa reside, had annual average employment growth of 1.9% between 2000 and 2005, well below the national average of 4.1%.

The Eastern Bay of Plenty population is expected to decline over the next decade, although the Whakatane area is likely to continue growing. By 2016, Maori are expected to be 30% of the Bay of Plenty population and 48% of the Whakatane district population. Population growth is often considered as an important driver of economic growth. The availability of employment opportunities at the local level are imperative as Ngati Awa and other Maori are less likely to remain and prosper in a lagging area.

Labour market outcomes for Maori in the Whakatane district and the Eastern Bay of Plenty area are not as favourable as for Maori at the regional and national level. However, Ngati Awa has labour market outcomes similar to Maori nationally and it performs better than other Maori groups in the Bay of Plenty and Eastern Bay of Plenty area.

The number of people receiving an unemployment benefit has decreased significantly both nationally and in the Eastern Bay of Plenty area in the last three years. Nevertheless, Maori are over-represented on the unemployment register both nationally and in the Eastern Bay of Plenty area.

Moreover, earnings rates among Bay of Plenty Maori have not kept up with national growth. There is also evidence of an above average worker turnover rate in the region. These two indicators suggest that although the quality of the workplaces and productivity levels are improving, they are relatively poor compared to other regions. The reasons for this would be worth exploring further, but the two factors noted above may be connected.

### **3.2) Capabilities: Skill and Training**

This then leads us to human capabilities, in particular, the workforce skills in the local economy, and of the Ngati Awa people, and the potential drivers of improvement in terms of education and training in the region.

Education at both school and post-school levels are improving for all Maori, and for Ngati Awa. Compared to all Maori, Ngati Awa has relatively high educational achievement levels. However, Eastern Bay of Plenty Maori tend to have below average educational achievement levels. It therefore seems probable that the more highly skilled Ngati Awa live or move outside this region.

Another useful dimension often considered in the skills and training context is the concept of 'field of study'. Based on 2001 Population Census data, the most common field of study for Ngati Awa, and for all Maori, is 'Society and Culture'. Several important areas of study in terms of job opportunities, such as engineering and information technology, are not as commonly studied as for non-Maori.

Ngati Awa can influence the provision of local training through its links to wananga and polytechnics, and through study grants. By linking fields of study to occupations of interest to Ngati Awa, there is potential for supply to be broadly linked to the areas of labour demand discussed in the next section.

In order for Ngati Awa to continue this type of analysis, the project has conceptualised and partly developed the following supply tools:

1. An indicator of the number of people in training at a regional level. This can be compared to the national picture for Ngati Awa, all Maori, and all non-Maori. This tool can be updated annually.
2. Linking study areas to common occupations to see which areas of study link to which occupations.
3. Census data on characteristics of Ngati Awa versus characteristics of the wider Maori or non-Maori population.
4. Occupation indicators which show key features for a large number of occupations.

### **3.3) Opportunities: industries and occupations**

Next we turn our attention to labour market opportunities that could further develop Ngati Awa's human and capital asset resources. Several studies on economic development in the Bay of Plenty and the Eastern Bay of Plenty have been conducted recently. Generally conducted at a high level of aggregation and based on a national and international economic outlook, these studies suggest that paper, pulp and beef production do not have high growth potential, although the latter still remains a steady performer. Industries such as kiwifruit, niche dairy, tourism and education services have more potential.

At the national level, the sorts of assets and investments owned by Maori and the skills and capabilities of Maori people appear to be moving in different directions, with the former more focused on the primary sector (e.g. agriculture and forestry), and the latter more on the services sector.

In the Eastern Bay of Plenty there appears to be a shortage of lower-skilled workers despite relatively high unemployment rates. A sign of this is the advertising occurring outside the region for relatively low skilled jobs, which has been noted by the Department of Labour's *Job Vacancy Monitor* (JVM).

Our report adds to these earlier studies and emphasises the most important industries in terms of number of employees. Education, and wood and paper have experienced a decline in employees, while dairy, horticulture and forestry have remained steady over the 2000 to 2005 period. In contrast, the number of employees has grown in accommodation, machinery manufacture, food and beverage, and livestock.

This analysis, together with the industry focus of Ngati Awa's investments and assets, allows us to shortlist a range of industries of specific interest to the Iwi. We then derived the most frequently occurring occupation groups in these industries at a national level using 2001 Census data. Occupations associated with the industries of specific interest to Ngati Awa include; farm managers and workers, nurses, teachers and tutors, caregivers, builders and tradespeople.

We have also identified the occupation groups associated with industries that typically feature in the Eastern Bay of Plenty economy. This region requires relatively high numbers of pulp and paper workers, fitters and turners, various trades workers, machinery mechanics and social workers. There is also demand for more broad occupation groups such as administrative staff.

Next, we explore local trends in clusters of economic activity. This analysis shows that:

- The number of employees in the forestry and wood processing sector has decreased significantly in the Eastern Bay of Plenty over the last five years. In comparison, national employment growth in the sector has been strong. The national outlook for the sector is mixed as the key products - paper and pulp - are on a downward demand trend. However, in other regions there appears to be opportunities to diversify the timber industry.
- Over the last five years, employment levels in the education, health and community services sector have been steady in the Eastern Bay of Plenty. However, in the wider Bay of Plenty region and nationally employment in these sectors grew. The outlook for the sector nationally is for modest growth.
- Growth in the number of employees in the tourism sector in the Eastern Bay of Plenty has lagged behind that of the wider Bay of Plenty region and New Zealand as a whole over the last five years. Nevertheless, local economic agencies are upbeat about the outlook for the tourism sector.

- The Eastern Bay of Plenty and the Bay of Plenty as a whole have experienced above average growth in the number of employees in the sheet-metal sector over the last five years. This sector is considered to be an alternative source of employment for some paper and pulp workers.
- The Eastern Bay of Plenty has virtually no employment in the aquaculture sector. Although the long-term growth outlook for the sector is positive, investors in this sector have to be prepared to wait more than 10 years for a return on their investment.
- The number of employees in the horticulture sector has been steady over the last year in the Eastern Bay of Plenty. However, the kiwifruit sub sector has recorded strong growth, both nationally and in the Eastern Bay of Plenty in the last year. The outlook for kiwifruit is positive, while forecasts for the horticulture sector as a whole are mixed.
- Growth in the number of employees in the beef sector has been strong at a national and a regional level, including in the Eastern Bay of Plenty. The outlook for the sector is however mixed, with export prospects looking good in the short-term, but weaker over the long-term. The sector is considered low-risk but with low returns.
- Over the last year, the number of employees in the dairy sector has been steady in the Eastern Bay of Plenty and the Bay of Plenty region, while growth has been high nationally. The outlook for growth in the sector is positive in particular for niche markets, but requires considerable investment.

Economic conditions and the industry outlook will change over time, as new data becomes available. While regular industry commentary and analysis is available from other sources (e.g. commercial bank reports and consultancy studies) this is typically presented at a broad level. In order to help Ngati Awa analyse industries and occupation groups at a detailed regional level three industry tools are proposed (see Table 2 on page 14). These tools allow comparison of trends over time with other regions as well as highlighting the most important industries according to a number of criteria.

### **3.4) Matching**

Finally, we make a first attempt to bring together human skills and the opportunities discussed earlier by looking at gaps in the labour market. This matching process is only preliminary, but draws on the findings from the analytical tools, and can be replicated in the future.

As noted before, the skills of workers in a labour market tend to be collected in occupational terms, while the range of opportunities for future employment growth are expressed in industry terms. One of the analytical tools prototyped during the project enables a connection to be made between the two.

Our findings point out that the Bay of Plenty region is still experiencing above average growth in job vacancies. This growth is mainly in the easier-to-fill lower skilled end of the labour market. This suggests a matching problem as there are

relatively high unemployment levels, especially in the Eastern Bay of Plenty area. Lower skilled jobs in the Eastern Bay of Plenty are being advertised outside this region, also suggesting matching problems.

Following on from this, our research suggested the need for a local version of the national Job Vacancy Monitor (JVM). This could provide some highly relevant and useful insights into the Eastern Bay of Plenty regional labour market. The JVM currently counts and analyses vacancies in 25 daily newspapers nationally, including two in the Bay of Plenty. However, both are in the Western region (Tauranga – *Bay of Plenty Times* and Rotorua – *Daily News*). While some of the Eastern Bay of Plenty vacancies may be advertised in these papers, they tend to be higher skilled positions that cannot be filled locally. We think that a programme of counting and analysing vacancies in the Eastern Bay of Plenty should be considered, and this proposal is included in our suite of labour market tools (see Table 2).

#### 4) Bringing the information together

Through a process of synthesising the available demand and supply information, and consultation with Ngati Awa, a list of 11 key occupations has been selected for detailed examination (see Table 1 below). These represent significant occupations in the region that feature strongly in the future industry mix Ngati Awa is examining. It also includes some occupations that are more generally of strategic interest to the development of Ngati Awa capability.

Table 1 demonstrates the type of analysis that can be carried out (and updated in the future) by using and integrating the set of tools developed in the course of this project.

The key questions about the occupations of interest to Ngati Awa include whether there are signs of growth in opportunities, and whether local options exist for further developing the capacity of the workforce. This is shown in the table below. A more in-depth analysis of the features of a larger selection of occupations may be found in Table 34 of the main report.

*Table 1: Occupations of interest to Ngati Awa –A quick overview*

Key Occupation	Main industry	National Indicators				Local Indicators	
		National Employment growth 01-05	Vacancy Fill Rate	% Maori	Main field of study 2001	Vacancy growth	Are courses offered in BOP?
Dairy Farmer/ Farm Worker	Dairy Cattle Farming	5.9%	n/a	5%	Agriculture, horticulture, fish & forestry	No growth	No
Registered Nurse	Hospitals (except Psychiatric Hospitals)	2.8%	58%	6%	Health	Decline	Yes
Care Giver	Accommodation for the Aged	4.6%	65%	15%	Society and Culture	Increase	Yes
Heavy Truck or Tanker Driver	Road Freight Transport	4.7%	55%	22%	Engineering, trade & related	No growth	No
Early Childhood Teacher	Preschool Education	7.7%	43%	8%	Education	No growth	Yes
Electrician	Electrical Services	5.6%	30%	7%	Engineering, trade & related	Increase	Yes
Pulp mill Production Worker	Pulp, Paper and Paperboard Manufacturing	-5.0%	n/a	40%	Engineering, trade & related	No growth	No
Motor Mechanic	Automotive Repair and Services	5.2%	43%	6%	Engineering, trade & related	Decline	Yes
Social Worker	Residential Care Services	4.5%	52%	24%	Society and Culture	Increase	Yes
Machinery Mechanic	Automotive Repair and Services	3.9%	21%	8%	Engineering, trade & related	Increase	No
University and Tertiary Lecturer and/or Tutor	Higher Education	5.1%	48%	9%	Education	No growth	No

Note: The 'fill rate' is the proportion of vacancies included in the Department of Labour's *Survey of Employers who have Recently Advertised* sample which were filled with an adequately qualified and experienced person within ten weeks of advertising.

In summary, some important national features of these occupations are:

- Most of these occupations are experiencing skill or labour shortages. Two of the trade occupations (electrician and machinery mechanic) are assessed as

being in acute shortage nationally, with the proportion of vacancies filled being below 40% in 2005.

- Most of the occupations experienced above average employment growth between 2000 and 2005, according to Department of Labour estimates. The notable exception was pulp and paper workers, which showed a 5% annual decline. This is a concern as this occupation has a very high proportion of Maori employees (40% in 2001) and also a relatively high share the employees who work in the Eastern Bay of Plenty.
- Over half the people working in these occupations in 2001 held post-secondary school qualifications. Only about 16% of the Eastern Bay of Plenty Maori working age population had post-secondary school qualifications at the time of the 2001 Census. While this includes people not working, it highlights the need for an increase in educational qualifications for Maori in Eastern Bay of Plenty to reach the standards generally required in this selection of jobs.

Some local features include:

- Four occupations experienced growth in job vacancies in Eastern Bay of Plenty; caregiver, social worker, electrician and machinery mechanic. This suggests that recruitment conditions have become more difficult for employers in these occupations, which could be due to growth in demand for the occupations, or fewer available people with the required skills and abilities.
- In a number of these occupations, the Maori percentage share of employment in 2001 was well above the national average of 11%. However, several others occupations, such as motor mechanic and dairy worker have a low proportion of Maori.
- Training courses within the Bay of Plenty have been run recently or are currently being run for the majority of occupations on the list. This is encouraging, but there may be scope for a larger number of relevant courses to be run locally.

## 5) Developing the toolkit

A key aim of the project has been to develop and use labour market knowledge to help Ngati Awa achieve its development objectives. This goal will require Ngati Awa to become familiar with the information tools shown in Table 2 with support and assistance from the Department of Labour. We expect to update and continue developing this suite of tools. In particular, the 2006 Census material (which will be progressively released from 6 December 2006) will offer many new analytical opportunities. For the tools to remain useful and relevant they need to be updated regularly. These tools have been developed using Excel spreadsheet applications. Excel is suitable and widely accepted software for use at least at the initial phase of the project.

Table 2 shows a summary of the proposed suite of tools.

*Table 2: Summary of the tools in the "Toolkit"*

	Tool	Purpose	Info used	Timeframe	Variables	Delivery format	Update frequency
1.	Ngati Awa Population Indicator	Compares Ngati Awa people characteristics with other Iwi and regional info	Census 2001 and 2006 when available	Still to be developed beyond conceptual stage	Wide range, potentially everything published at Iwi level 2001 and 2006	Excel custom menu	5 years
2.	Education Participation	Compares number of people participating in education and achievement levels	Ministry of Education data	data still being assembled	Field of Study Level of attainment, year, provider, ethnicity, region of campus	Excel Pivot	Annual
3.	Business Demography (Two tools)	Visual presentation of regional industry snapshot (tool A) and trends (Tool B)	Business Demography	Trial version ready now	Number of Employees, Enterprises, Geographic Units	Excel custom menu	Annual
4.	Industry – Occupation Mapping	Maps occupations to industries at the national and regional level	Business Demography & Census (for country as a whole)	data still being assembled	Number of Employees only	Excel custom menu	Annual
5.	Occupational Indicators	At a glance national info on every occupation	Census plus many other sources	Trial version ready now	Wide range	Excel custom menu	Biannual
6.	Mini Local JVM	Trends in local job vacancies	Job vacancies from local media	Still to be developed beyond conceptual stage	Job vacancies	Excel custom menu	Monthly

The tools will be gradually made available as a web-based resource to a variety of users including other Iwi in the Bay of Plenty as well as other agencies throughout the country.