



SOUTHERN METROPOLITAN REGIONAL COUNCIL

*Report
on*

REGIONAL GREENHOUSE GAS ABATEMENT – *BUSINESS* PROGRAM

STAGE 2: SURVEY OUTCOMES & BACKGROUND RESEARCH

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This report examines greenhouse gas abatement opportunities in two small to medium sized enterprise (SME) sectors, Local Centres – City of Cockburn and Food Processing Enterprises – City of Canning. Survey objective and methodology is described, followed by survey results and sector-wise conclusions and recommendations.

EXECUTIVE SUMMARY

From March 2005 to July 2005, the Greenhouse Project Officers at Southern Metropolitan Regional Council (SMRC) together with CCP officers from City of Canning and Cockburn conducted a business survey as part of the Regional Greenhouse Gas Abatement – Business Program. The objective of this survey was to identify the level of interest and opportunities for energy efficiency amongst two small to medium sized business sectors – Local Centres and Food Processing, These two sectors are common across the region and hence suitable for a regional program, and they also have added benefits like being point of contact for Greenhouse Education Programs with residents, and approachable through Environmental Health Officers respectively.

The survey was also used to ascertain the feasibility and capability of two models; Community based Social Marketing (CBSM) and Enterprise Facilitation (EF), as means of delivering the Greenhouse Gas Abatement Program.

LOCAL CENTRES

Nine different types of businesses were chosen for the Local Centre survey, with sixteen participants in all. These businesses were chosen with the criteria that they have a large local customer base, and have independent energy metering, unlike large shopping centres.

The results showed that this sector has a number of common greenhouse emitting practices, which can be addressed through either CBSM or EF techniques in order to obtain reductions in greenhouse gas emissions. A majority of the businesses had ideas of their own for improving energy efficiency, and also had a high opinion for the services of an Enterprise Facilitator. However in case of the value of ‘green’ image for their businesses, the opinions were quite varied and were influenced by personal perceptions of level of environmental awareness amongst the community.

About 75% of the businesses showed personal interest in sustainability education

FOOD PROCESSING ENTERPRISES

Five different types of businesses were chosen for the Food Processing Enterprises survey, with six participants in all. The results showed that this sector does not have any common greenhouse gas emission practices due to the diverse nature of the businesses, and the technology they employ.

Nearly all the businesses had ideas of their own for reducing their energy consumption. The general perception of the value of an Enterprise Facilitator was not as high as the Local Centre sector. The same was the case with the value of 'green' image for the business.

There is some scope for EF Model, although the role of the Facilitator might be much more difficult than in case of the Local Centre sector.

TABLE OF CONTENTS

1	INTRODUCTION.....	6
1.1	BACKGROUND	6
1.2	REPORT LAYOUT	6
2	BUSINESS SELECTION CRITERIA	7
2.1	LITERATURE REVIEW	7
2.2	SELECTION CRITERIA FOR BUSINESS-SECTOR.....	8
3	POTENTIAL MODELS FOR DELIVERING THE PROGRAM.....	9
3.1	ENTERPRISE FACILITATION (EF) MODEL	9
3.2	COMMUNITY BASED SOCIAL MARKETING (CBSM) MODEL	9
4	SURVEY OBJECTIVES AND METHODOLOGY	11
4.1	SURVEY OBJECTIVES.....	11
4.2	SURVEY METHODOLOGY	11
5	SURVEY RESULTS.....	13
5.1	LOCAL CENTRES (CITY OF COCKBURN)	13
5.2	FOOD PROCESSING ENTERPRISES (CITY OF CANNING).....	18
6	CONCLUSIONS AND RECOMMENDATIONS	24
7	APPENDICES.....	26
7.1	APPENDIX I – LOCAL CENTRE SURVEY QUESTIONNAIRE	26
7.2	APPENDIX II – FOOD PROCESSING SURVEY QUESTIONNAIRE.....	31

LIST OF FIGURES

FIGURE 1	FLOWCHART OF SURVEY METHODOLOGY.....	11
FIGURE 2	LOCAL CENTRES – PERCEPTION OF IMPORTANCE OF LOCAL CUSTOMERS.....	14
FIGURE 3	LOCAL CENTRES – ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS.....	14
FIGURE 4	LOCAL CENTRES – MOTIVATION FOR IDEAS.....	16
FIGURE 5	LOCAL CENTRES – BARRIERS FACED / PERCEIVED	16
FIGURE 6	LOCAL CENTRES – PERCEIVED VALUE OF ENTERPRISE FACILITATION	17
FIGURE 7	LOCAL CENTRES – PERCEIVED VALUE OF GREEN IMAGE FOR THE BUSINESS.....	18
FIGURE 8	FOOD PROCESSING ENTERPRISES – ESTIMATED ANNUAL GHG EMISSIONS DUE TO ENERGY CONSUMPTION AND ORGANIC WASTE DISPOSAL TO LANDFILL	19
FIGURE 9	FOOD PROCESSING ENTERPRISES – MOTIVATION FOR IDEAS.....	21
FIGURE 10	FOOD PROCESSING ENTERPRISES – BARRIERS FACED / PERCEIVED	21
FIGURE 11	FOOD PROCESSING ENTERPRISES – PERCEIVED VALUE OF ENTERPRISE FACILITATION.....	22
FIGURE 12	FOOD PROCESSING ENTERPRISES – PERCEIVED VALUE OF GREEN IMAGE FOR THE BUSINESS	23

LIST OF TABLES

TABLE 1	LOCAL CENTRES – SELECTED BUSINESS TYPES.....	13
TABLE 2	LOCAL CENTRES – WORKPLACE OVERVIEW.....	13
TABLE 3	LOCAL CENTRES – PERCEIVED VALUE OF ENTERPRISE FACILITATION.....	17
TABLE 4	LOCAL CENTRES – PERCEIVED VALUE OF GREEN IMAGE FOR THE BUSINESS.....	17
TABLE 5	FOOD PROCESSING – SELECTED BUSINESS TYPES.....	18
TABLE 6	FOOD PROCESSING – WORKPLACE OVERVIEW.....	19
TABLE 7	FOOD PROCESSING ENTERPRISES – PERCEIVED VALUE OF ENTERPRISE FACILITATION.....	22
TABLE 8	FOOD PROCESSING ENTERPRISES – PERCEIVED VALUE OF GREEN IMAGE FOR THE BUSINESS.....	22

1 INTRODUCTION

1.1 BACKGROUND

Southern Metropolitan Regional Council (SMRC) is assessing strategies for encouraging greenhouse gas abatement in small to medium sized enterprises (SMEs) under the Regional Greenhouse Gas Abatement Program. In 2003-04 a literature survey was conducted of business environmental programs in Australia and overseas. In March 2005, Vikram Kenjle joined the SMRC Greenhouse Team to progress the project through the next research stage and identify the key SME sectors for energy efficiency, identify business program models and drivers to test, carry out a survey to assess the level of interest and opportunities for greenhouse gas abatement through the business models, and finally recommend how the Councils can best support these businesses to achieve cost-effective reduction in their greenhouse gas emissions.

1.2 REPORT LAYOUT

The report presents:

- Criteria for selecting the business sectors based on conclusions drawn from the literature review.
- A brief introduction to two models, Community Based Social Marketing (CBSM) and Enterprise Facilitation (EF), which were chosen to be tested in the survey to find out their suitability for engaging businesses and achieving greenhouse abatement actions.
- A discussion of the needs of businesses to achieve greenhouse abatement actions
- Survey methodology.
- Survey results.
- Conclusions and recommendations.

2 BUSINESS SELECTION CRITERIA

2.1 LITERATURE REVIEW

The first phase of the Regional Greenhouse Gas Abatement – Business Program comprised of an extensive literature review of various programs delivered by Local / State governments across the world to assist SMEs to reduce their greenhouse gas emissions. This was largely completed in 2003-04 and updated with findings from several sources such as Eco-Efficiency Survey done by Australian Chamber of Commerce and Industry, sustainability programs developed by the Canadian Ministry of Environment and Ontario Centre for Environmental Technology Advancement (OCETA), and a recent research done by Sustainable Energy Development Office (SEDO) on attitude of Western Australian SMEs towards energy efficiency. The sources highlighted the barriers and benefits of implementing greenhouse abatement measures, as perceived by the business community. In general the barriers for small to medium sized enterprises can be summarised as follows:

Barriers to implementing GHG Abatement Measures:

- Financial difficulties
 - Existing financial burdens (mortgage/debts)
 - Concerns regarding payback period / return-on-investment
- Focus on short-term priorities
 - Limited time and expertise available to consider operational efficiency improvements
 - Limited ability to withstand operation-downtime to implement efficiency measures
- Lack of awareness and technical knowledge of opportunities
- Ignorance and apathy towards making changes in existing behaviours

From the literature review it can be concluded that greenhouse gas abatement is not of greatest priority for most SMEs, nor is it yet a regulatory requirement, and hence it is quite difficult to engage businesses in greenhouse programs.

2.2 SELECTION CRITERIA FOR BUSINESS-SECTOR

Based on the conclusions drawn from the literature review, the following criteria were developed for selecting business sectors for the survey, to maximise the effectiveness of engaging with and achieving greenhouse gas reduction in the community.

- Have an existing relationship with the Local Council to facilitate means for engagement in the survey and the program (at a later stage)
- Are geographically spread across the region so that all the participating councils can benefit.
- Are relatively large users of energy and/or are significant in number in the region.
- Have independent energy metering and are in-charge of their utility (energy/water) bills
- Preferably have direct contact with customers who are local residents

Taking the above criteria into consideration, the following two sectors were selected for the survey-stage of the Program:

- **Local Centres** (in City of Cockburn)
- **Food Processing Enterprises** (in City of Canning)

3 POTENTIAL MODELS FOR DELIVERING THE PROGRAM

Two models, Enterprise Facilitation and Community based Social Marketing, were identified in the literature review as effective methodologies with potential for delivering the Regional Greenhouse Gas Abatement Business Program. A brief description of the models is given below.

3.1 ENTERPRISE FACILITATION (EF) MODEL

This model has been developed by Ernesto Sirolli, a noted authority in the field of sustainable economic development. Sirolli believes that transfer of new technology and practices are unlikely to succeed if desired or not requested by the business. Instead Sirolli espouses a bottom-up approach to economic development, and aims at improving the climate for entrepreneurship in a community. The approach targets motivated businesses and supports them through free confidential advice to transform their good ideas into viable and sustainable businesses practices. These champions then spur on others in the sector to seek advice and make changes.

The model operates via an Enterprise Facilitator, whose key role is to:

- Identify and understand ideas and motivation of businesses / entrepreneurs
- Support businesses through free and confidential advice to materialise their ideas by:
 - Testing the personal motivation and skills of the business owner/ entrepreneur and teaching them to assess their own management strengths and weaknesses.
 - Linking them with experts / trainers / mentors in the concerned field.
 - Guiding them into effective partnerships.
 - Encouraging them to learn from each other and build networks.

The role of the Enterprise Facilitator may be redefined for the purpose of this Program to facilitate SMEs with ideas that relate to energy, water and waste, and hence achieve greenhouse gas abatement.

3.2 COMMUNITY BASED SOCIAL MARKETING (CBSM) MODEL

The concept of this model has been pioneered by Doug McKenzie-Mohr, a leader in the field of community based social marketing.

Traditionally, programs intending to promote sustainable behaviour have relied heavily or solely on media advertising, information campaigns or financial rebates. Although they may be

effective in creating public awareness, they are limited in their ability to foster long-term behaviour change.

Instead CBSM emphasises the importance of directly targeting the individual actions through the following steps:

- Identify barriers & benefits these actions as viewed by the target group through focus groups and/or surveys.
- Develop and conduct a pilot program to overcome the barriers (Remove barriers from the action the project aims to encourage and simultaneously add barriers to the activity one wants to discourage)
- Refine the program until reasonable confidence is attained about its effectiveness
- Implement the program across the intended target audience
- Evaluate/Measure the effectiveness of the program

This model may be directly applied with minimum changes in its structure, to satisfy the objectives of the Regional Greenhouse Gas Abatement Business Program.

4 SURVEY OBJECTIVES AND METHODOLOGY

4.1 SURVEY OBJECTIVES

Survey questionnaires were developed for the two sectors, Local Centres and Food Processing Enterprises, with the following objectives:

- Identify common practices (if any) across a sector, which can then be addressed to reduce greenhouse gas emissions and hence assess CBSM model potential.
- Identify whether there is value and interest in energy audits or whether businesses have their own energy reduction ideas that have already been or yet to be implemented.
- Assess the value businesses perceive in free independent and confidential advice for overcoming barriers, which have prevented them from implementing their ideas and hence assess EF model potential.
- Assess the value businesses perceive in ‘Green / Eco-Branding’
- Identify opportunities (if any) to tie in with SMRC Greenhouse Education Projects with residents.

4.2 SURVEY METHODOLOGY

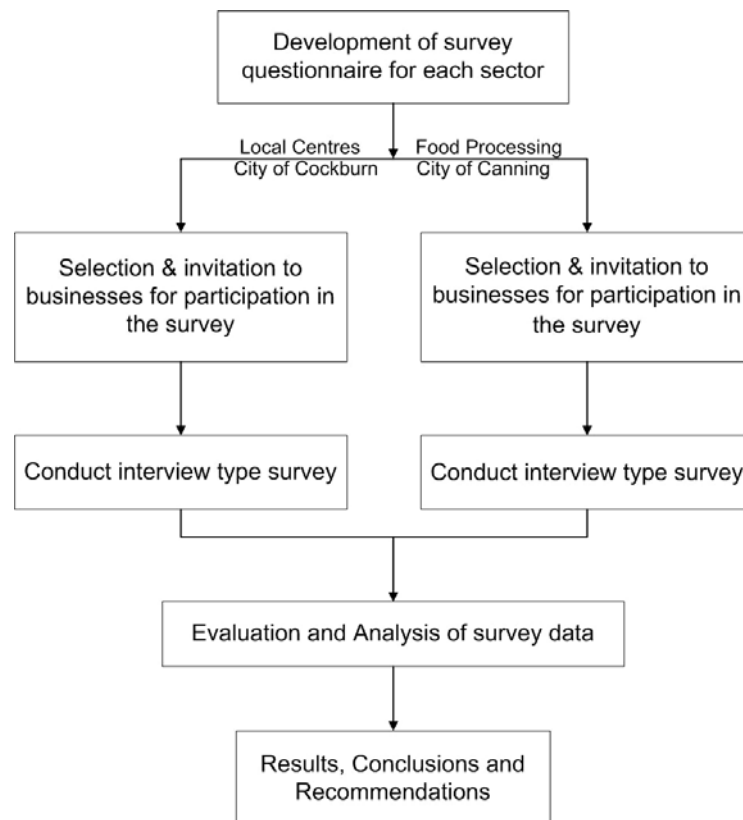


Figure 1 Flowchart of Survey Methodology

Survey questionnaires were first developed for the two sectors; Local Centres and Food Processing Enterprises. The questionnaires were divided into several parts; workplace related questions, questions regarding ideas for energy conservation, value of Eco-branding, waste disposal practices, and energy-usage practices. For the Local Centres, additional business specific energy-related questions were also added to the questionnaire to determine any obvious common practices.

Businesses were then selected and invited to participate in the survey with the help of the Environmental Officers from the Cities of Cockburn and Canning.

An interview type survey was then conducted at each workplace, and a brief walkthrough-type energy audit was also conducted at the Local Centres to note down their main electrical and gas appliances.

The data collected from the two sectors was then compiled and evaluated to determine general business stability, average energy and waste related greenhouse emissions from each type of business, perception of business regarding services of an Enterprise Facilitator, etc.

Finally conclusions were drawn from the results obtained, and sector-wise recommendations were made regarding model application, and next phase of the Program.

5 SURVEY RESULTS

5.1 LOCAL CENTRES (CITY OF COCKBURN)

5.1.1 Selected Business Types

For this survey, Local Centres from three shopping centres (City of Cockburn) were chosen; Coogee Plaza (Coogee), Stargate Shopping Centre (Atwell), and Southlake Shopping Centre (Southlake). The business types selected for the survey are shown in Table 1 below.

Beauty Saloon	4
Pharmacy	2
Small Restaurant	2
Liquor Store	2
Deli and Grocery	2
Supermarket	1
Bucher	1
Bakery	1
Video Rental Store	1
Total	16

Table 1 Local Centres – Selected Business Types

5.1.2 Workplace Overview

Average business age	2.2 years
Average number of full time employees	3
Average number of part time employees	5
Businesses renting the premises	100%
Member of any Business / Industrial Association	Underwhelming response
Any environmental concerns in day-to-day activities	Underwhelming response
Keen to learn how to lead a sustainable lifestyle	75%

Table 2 Local Centres – Workplace Overview

Conclusion

Most of the businesses are quite new, have few full-time and part-time employees, and are renting the work-premises, thus showing that the average business stability is quite low. Also very few businesses are members of any Business / Industrial Associations.

The importance of local customers as perceived by the businesses is as shown in Figure 2 on the following page.

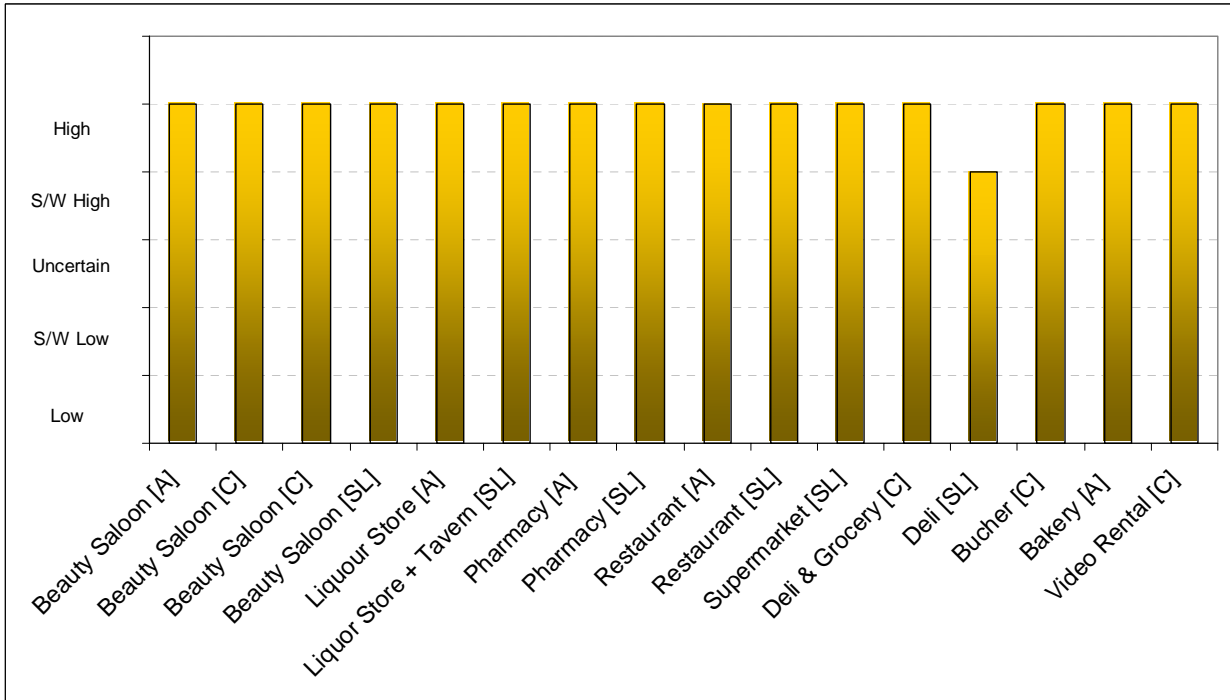
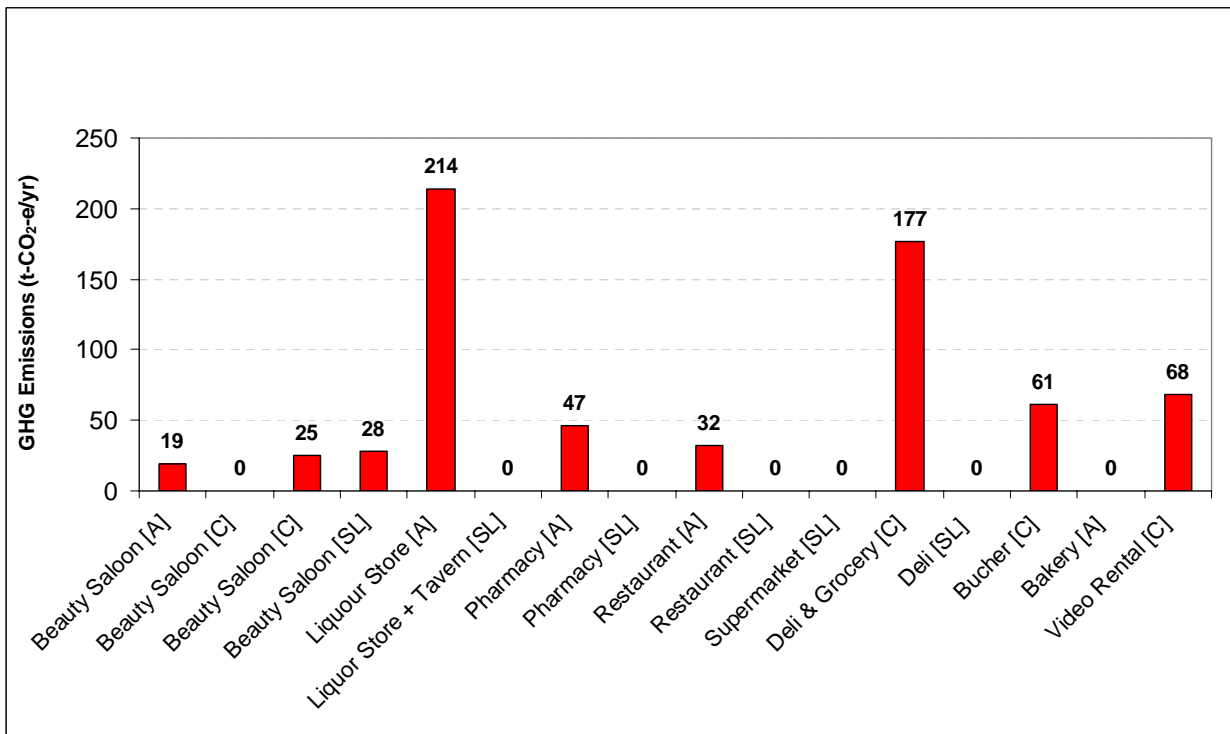


Figure 2 Local Centres – Perception of importance of local customers

5.1.3 Estimated Annual Greenhouse Gas Emissions



Note: Zero value indicates insufficient data to estimate greenhouse gas emissions

Figure 3 Local Centres – Estimated annual greenhouse gas emissions

5.1.4 Energy Efficiency Opportunities

Current Situation

- All businesses are in charge of their own utility (energy/water) bills
- 75% of the businesses showed concern about their high energy costs
- Only 2 out of 16 businesses (12.5%) have had an Energy Audit in the past
- 70% of the businesses claim to practice 'No Cost' energy conservation measures

Identified Opportunities

- Out of 11 businesses with refrigerative type air-conditioning, 64% kept it ON with their doors open (Primary Reason – To show that the shop is open)
- Out of 6 businesses with electric water heaters / urns, all kept it ON throughout the night (Primary Reason – Ensure availability of hot water when opening the shop)
- None of the businesses had installed energy efficient lighting

Conclusion

There is room for CBSM model to be applied to harness the identified opportunities. However some of the barriers in doing so might be quite diverse in nature.

5.1.5 Waste Management Opportunities (from a GHG Abatement Perspective)

Current Situation

- 63% of the businesses throw their cardboard waste into separate cardboard-recycling bin
- Out of the 7 concerned businesses, 43% mix organic waste with recyclables
- 70% of businesses utilises waste bins provided by the Centre-Management
- 30% of businesses have hired the services of private waste-collection companies
- 5 businesses want to separate their recyclables, but do not have the correct type of bin provided by the Centre-Management
- Waste disposal charges:
 - Free 44%
 - Part of Rent 38%
 - Private Contractor 19%

Conclusion

There is an urgent need to resolve this situation with the centre-management. Local Councils could take on the role to either collect waste or facilitate negotiations directly with waste recyclers. This area alone if improved has significant greenhouse abatement benefits through

reduced energy and water use in recycling and reduced methane emission from landfilling of organic waste.

5.1.6 Enterprise Facilitation Opportunities

Current Situation

- Businesses with ideas of their own to make their business more energy efficient and greenhouse friendly = 44%
- Businesses with no existing ideas of their own, but showed keen interest in becoming more energy and waste efficient = 31%
- Businesses with no ideas, nor any interest in reducing greenhouse gas emissions = 25%

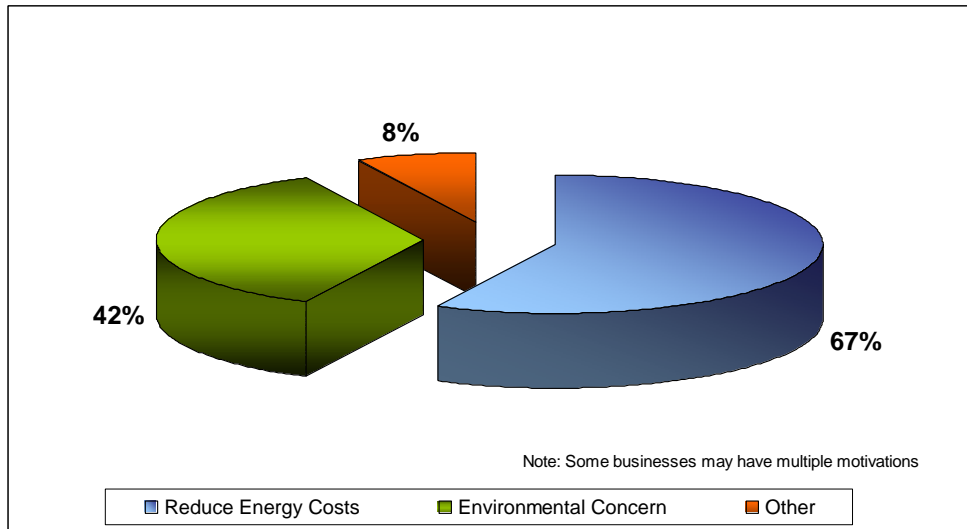


Figure 4 Local Centres – Motivation for ideas (sample size n = 12)

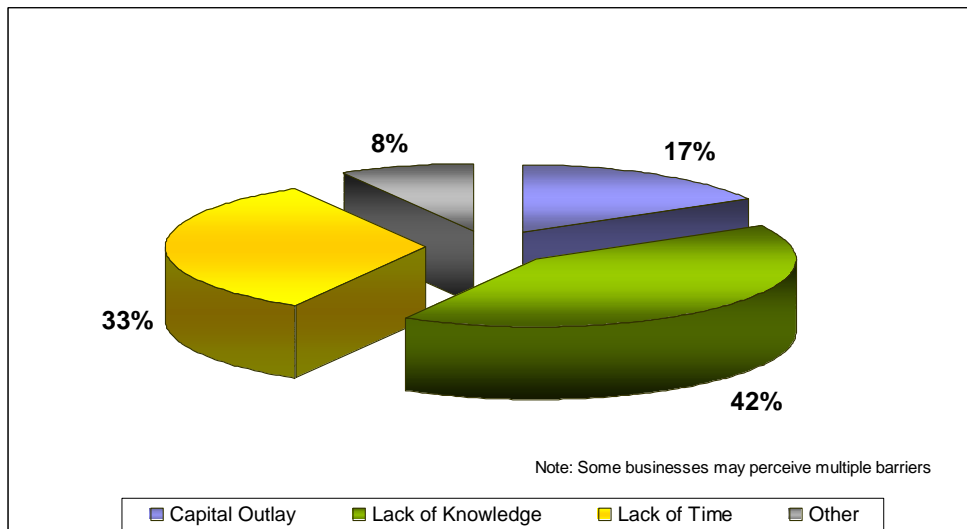


Figure 5 Local Centres – Barriers faced / perceived (sample size n = 12)

High	63%
Somewhat High	31%
Low	6%

Table 3 Local Centres – Perceived value of Enterprise Facilitation

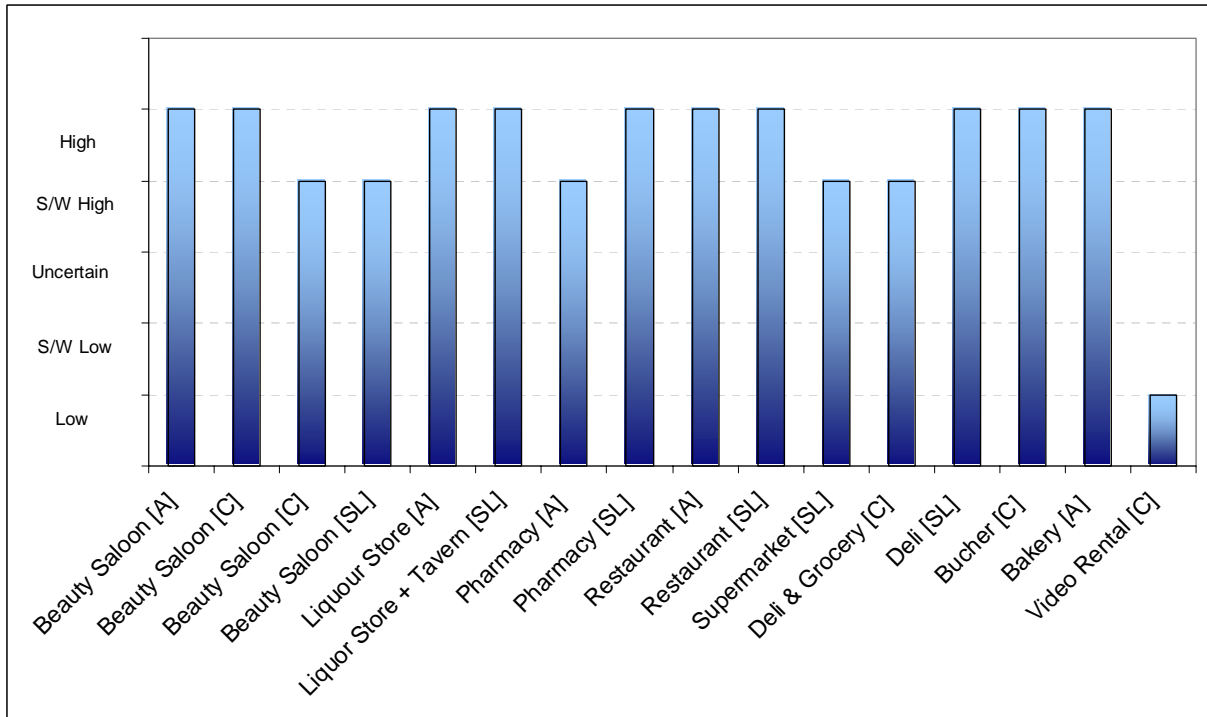


Figure 6 Local Centres – Perceived value of Enterprise Facilitation

Conclusion

The Enterprise Facilitation Model has potential to link shop-owners to relevant information they need to implement their ideas, and also reduce their time to access it.

5.1.7 Green / Eco-Branding Opportunities

High	38%
Somewhat High	19%
Uncertain	25%
Somewhat Low	19%

Table 4 Local Centres – Perceived value of Green Image for the business

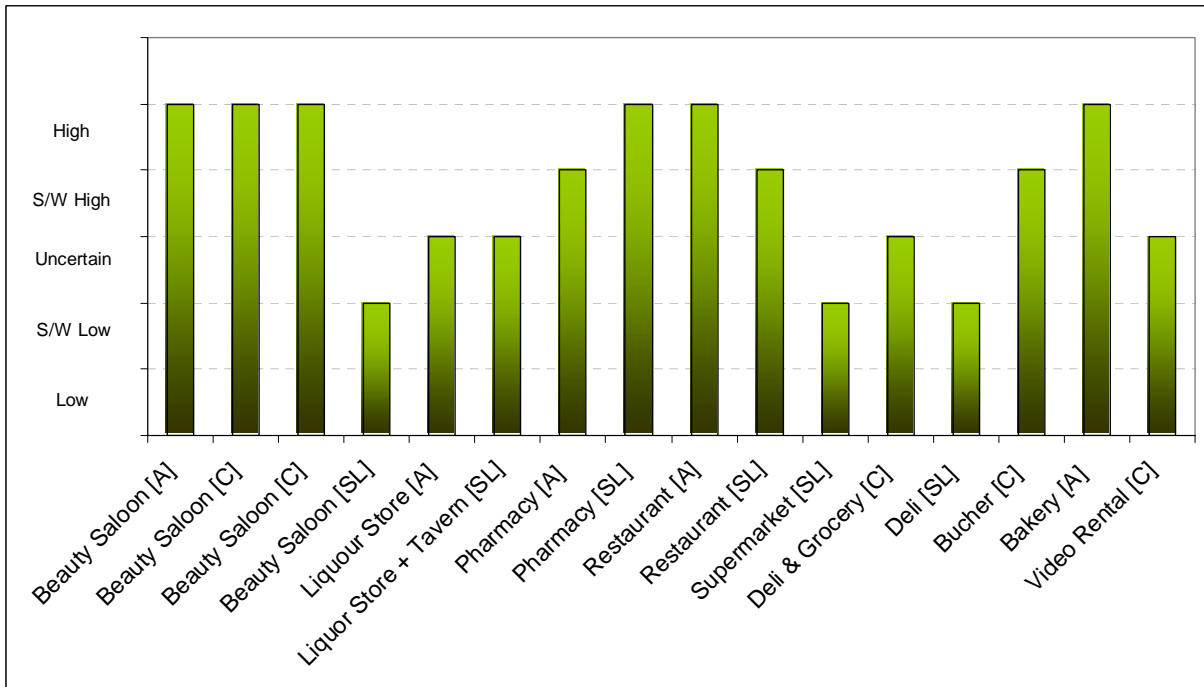


Figure 7 Local Centres – Perceived value of Green Image for the business

Conclusion

Shop-owners rate Eco-branding relatively high, but they see variations across suburbs, which relates to the perceived level of environmental concerns of the local residents.

5.2 FOOD PROCESSING ENTERPRISES (CITY OF CANNING)

5.2.1 Selected Business Types

For this survey, a diverse range of food processing business types were selected, as shown in Table 5 below, in order to assess whether there are any common barriers and needs across this sector.

Bread Bakery	2
Wet Salad Production	1
Dry Salad Production	1
Lobster & Fish Processing	1
Chicken Processing	1
Total	6

Table 5 Food Processing – Selected Business Types

5.2.2 Workplace Overview

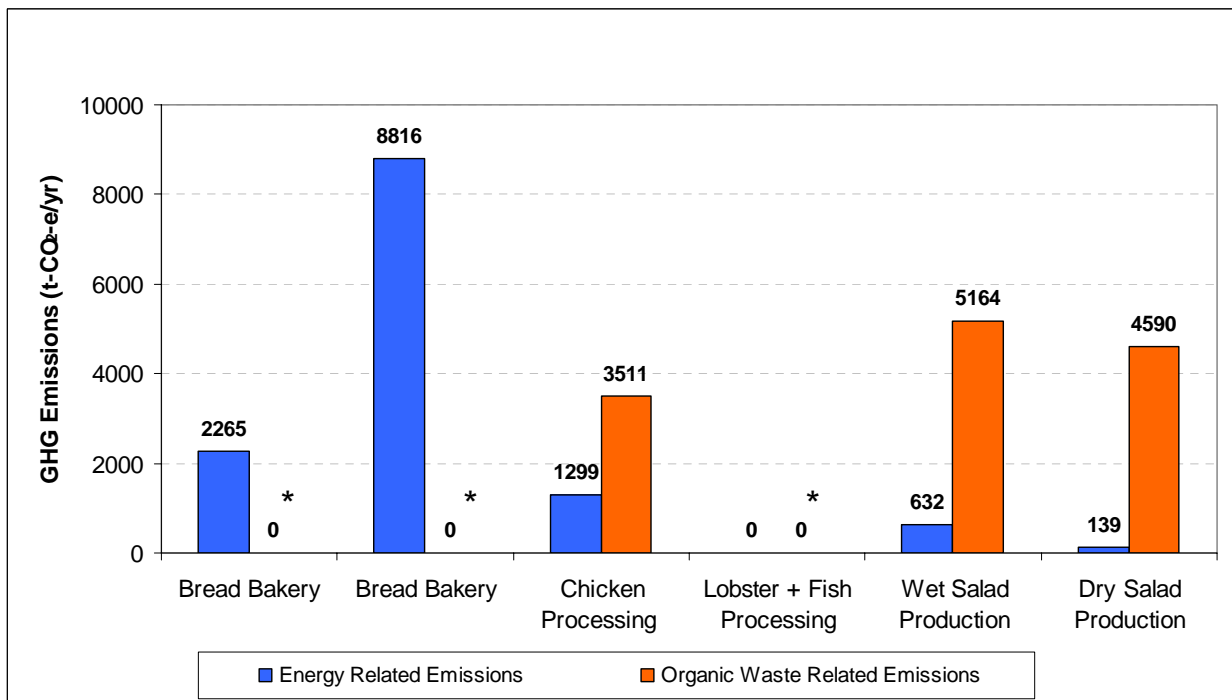
Average business age	13 years
Average number of employees	128
Businesses owning work premises	67%
Businesses renting work premises	33%
Member of any Business / Industrial Association	Underwhelming response
Any environmental concerns in day-to-day activities	Underwhelming response

Table 6 Food Processing – Workplace Overview

Conclusion

As compared to the Local Centres, the Food Processing Enterprises are relatively quite large in terms of workforce, business age, and invested and available capital, thus showing that the average business stability is quite high. However, very few businesses from this sector too are members of any Business / Industrial Associations.

5.2.3 Estimated Annual Greenhouse Gas Emissions



Note: * indicates that most of the organic waste is reused or given as animal feed or taken by companies such as Talloman®

Figure 8 Food Processing Enterprises – Estimated annual GHG emissions due to energy consumption and organic waste disposal to landfill

5.2.4 Energy Efficiency Opportunities

Current Situation

- All businesses are in charge of their own utility (energy/water) bills
- 83% of the businesses showed concern about their high energy costs
- Only 1 out of 6 businesses (16.7%) have had an Energy Audit in the past
- Out of 5 concerned businesses, 60% have significant hot water waste
- Out of 3 concerned businesses, only 1 has installed a heat recovery system

Conclusion

There are no obvious opportunities to address any common practices or equipment inefficiencies due to the diverse nature and size of the businesses.

5.2.5 Waste Management Opportunities (from a GHG Abatement Perspective)

Current Situation

- 67% of the businesses throw their cardboard waste into separate cardboard-recycling bin
- 100% of the businesses send rest of the recyclables to landfill
- 50% send a major portion of their organic waste to landfill

Primary Reason Identified

Due to high waste handling cost and lack of regulations forcing mandatory recycling, most businesses choose to adopt least cost approach to waste disposal.

Conclusion

Large quantities of organic waste and recyclables are currently going to landfills and this is a substantial source of greenhouse gas emissions. Possible solutions to reduce this problem are as follows:

- Impending regulation changes are likely to force businesses to change their practices in the near future.
- The Waste Composting Facility of the SMRC – Regional Resource Recovery Centre (RRRC) should investigate opportunities to take up organic portion of the waste when it is at full operating capacity to receive it.

5.2.6 Enterprise Facilitation Opportunities

Current Situation

- Businesses with ideas of their own to make their business more energy efficient and greenhouse friendly = 100%

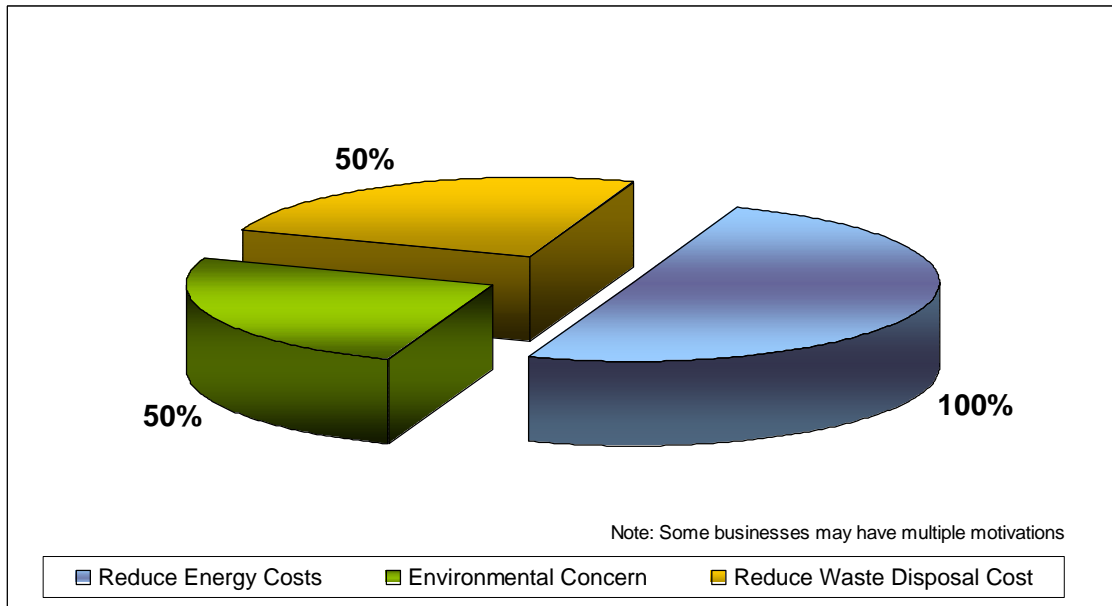


Figure 9 Food Processing Enterprises – Motivation for ideas (sample size n = 6)

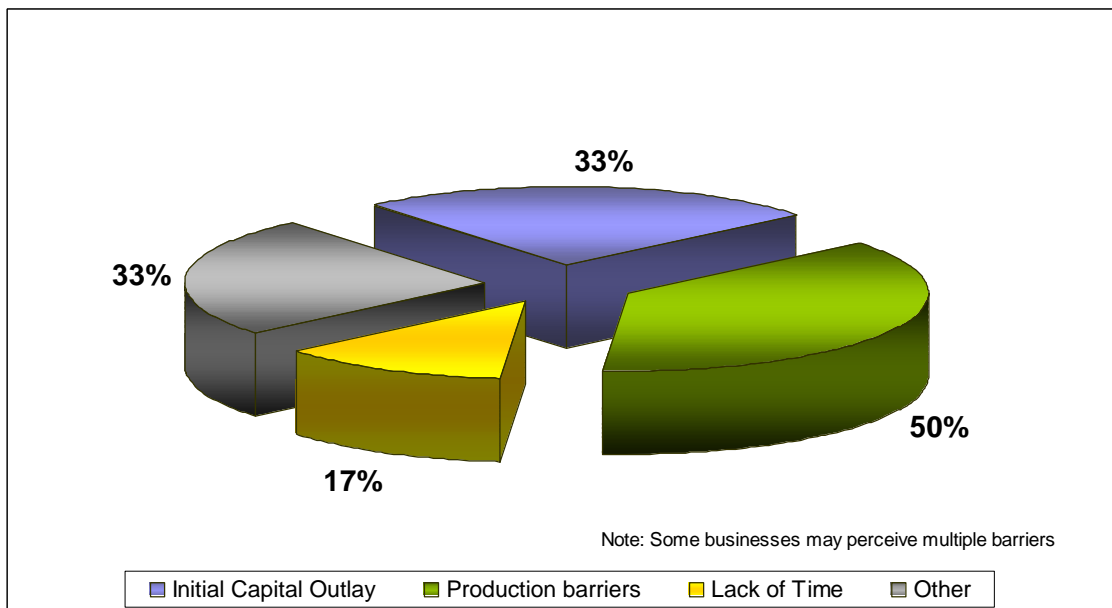


Figure 10 Food Processing Enterprises – Barriers faced / perceived (sample size n = 6)

High	50%
Somewhat High	33%
Low	17%

Table 7 Food Processing Enterprises – Perceived value of Enterprise Facilitation

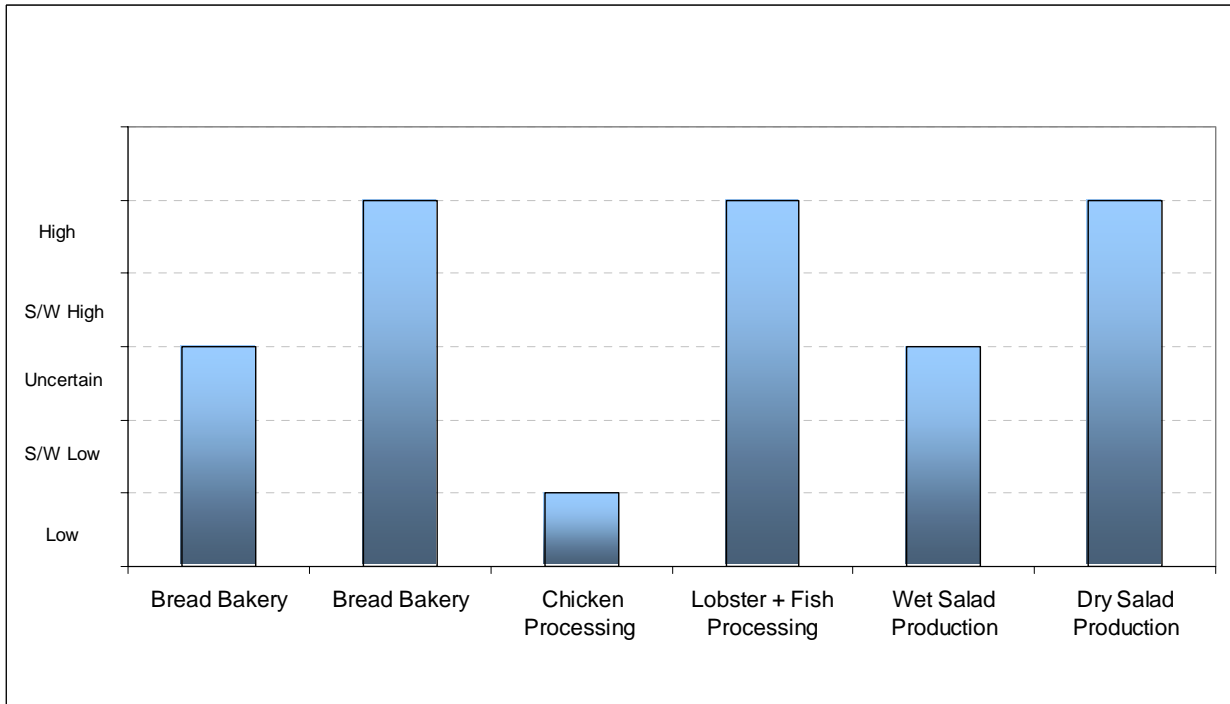


Figure 11 Food Processing Enterprises – Perceived value of Enterprise Facilitation

Conclusion

The Enterprise Facilitation Model may work for the food-processing sector also. Initially only one or two businesses maybe needed, who can then set an example for others to follow. However the role of the Enterprise Facilitator might be quite difficult due to the technology complexity and differences that exist across this sector.

5.2.7 Green / Eco-Branding Opportunities

High	17%
Somewhat High	17%
Somewhat Low	33%
Low	33%

Table 8 Food Processing Enterprises – Perceived value of Green Image for the business

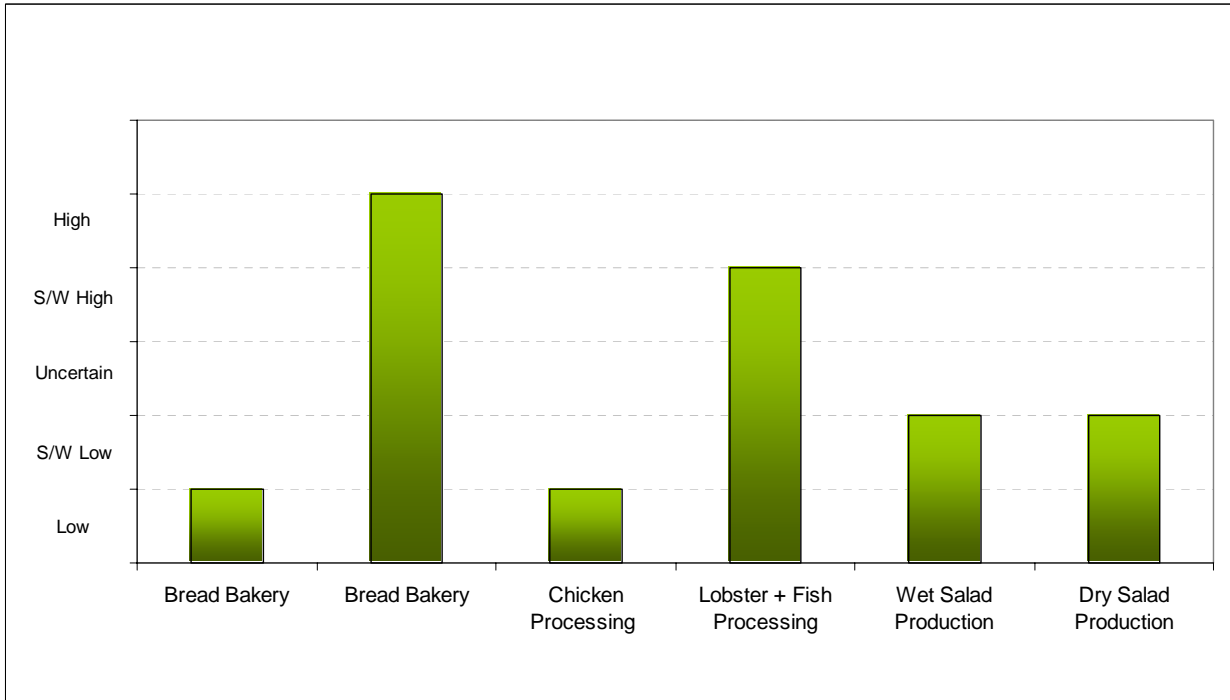


Figure 12 Food Processing Enterprises – Perceived value of Green Image for the business

Conclusion

Most Food Processing Enterprises do not directly engage with customers, hence their perception of the value of Eco-branding is seen to vary quite a lot.

6 CONCLUSIONS AND RECOMMENDATIONS

The survey results showed that **most businesses** from both the Local Centre and the Food Processing sectors **are not members of any relevant Business / Industrial Associations**. Hence there is not much scope to follow the footsteps of Environmental Programs such as Department of Environment's Green Stamp model, and use business associations to reach businesses in these sectors. Instead there is **more potential for the CBSM and EF Models**.

LOCAL CENTRES

- A **number of common energy usage practices have been identified** in the Local Centre Sector, for example; keeping shop-doors open while using refrigerative-type air conditioners, leaving water heaters / urns ON throughout the night, using inefficient lighting etc. These **common energy usage behaviours can be addressed using the CBSM Model**.
- There is **also much scope to implement the Enterprise Facilitation Model**, since it has been identified that the largest barriers to implementing energy efficiency and waste reduction measures are, lack of time to investigate opportunities and lack of technical knowledge, and that such type of barriers can be alleviated by an Enterprise Facilitator.
- An **overwhelming personal interest expressed by the Local Centre owners and staff in sustainability education** has also been identified, and hence there are opportunities to engage these people in residential courses like Living Smart and Green Houses.

FOOD PROCESSING ENTERPRISES

- Since **no common practices have been identified in this sector**, there is **not much scope for the CBSM Model**. Also, the role of an Enterprise Facilitator is quite difficult due to the technology complexity and differences that exist across this sector.
- A **more suitable and effective approach** would be to initially help just one or two businesses of each type of food processing enterprise via an Enterprise Facilitator, and then advertise these businesses as **Champion Models**, in order to encourage similar behaviours amongst their competitors.

Any **future engagement with either sector will also need to tackle the waste issues** that have been identified in both the sectors, and to develop strategies to provide information and/or services to the businesses in order to avoid frustration and disillusionment, as was also identified in the Living Smart for Workplace - Pilot Program (in City of Fremantle).

Thus we recommend in the next stage of the Regional Greenhouse Gas Abatement Program to develop pilot project proposals and seek suitable grant funding for these three potentially viable projects:

- Community based Social Marketing in Local Centres**
- Enterprise Facilitation in Local Centres**
- Enterprise Facilitation in Food Processing Enterprises**

7 APPENDICES

7.1 APPENDIX I – LOCAL CENTRE SURVEY QUESTIONNAIRE



REGIONAL GREENHOUSE GAS ABATEMENT – BUSINESS PROGRAM (Survey of Local Centres)

Confidentiality Statement:

Individual responses are kept confidential. Your responses will only be used to help the project team design a more effective and successful program.

Notes for introductory comments:

This project is part of a wider program currently being developed by the council partnership to tackle climate change (global warming). Seven councils are collectively dedicating resources to reduce greenhouse gas emissions from council facilities, vehicle fleets, and in the wider community residential sector. Now we are focusing on your own sector (i.e. small & medium sized business enterprises).

The **purpose of this survey** is to:

- Identify interest and opportunities in reducing GHG emissions in your sector.
- To find out if business owners / managers such as yourself already have any ideas for improving the environmental performance of your business, but haven't been able to materialize the ideas due to one or more barriers.
- We also want to find out if you have any environmental concerns, and how valuable do you consider 'Green / Eco branding' for your business.

Survey Questionnaire

1. Business Name: _____
2. Business Type: _____
3. Name (& Position) of the person interviewed: _____
4. Current form of workplace ownership:

Renting	<input type="checkbox"/>
Mortgage	<input type="checkbox"/>
Outright ownership	<input type="checkbox"/>
5. How long has the business been in operation? _____
6. Number of employees:

Full-time permanent	_____
Part-time permanent	_____
Full-time temporary	_____
Part-time temporary	_____

7. Member of any local business / industry association? Yes No

Name: _____

8a. Environmental issue/s of greatest concern to your business (if any) _____

8b. Environmental issues/s of greatest concern to your customers (if any) _____

9. Importance of local customers for the business: Low Somewhat Low Uncertain Somewhat High High

We are interested in tackling greenhouse gas emissions across the community. This means not just looking at the energy we use in our shops or homes, but also the energy required to transport, manufacture and store our food products.

So buying WA fresh foods is a good move to reduce greenhouse gas emissions – so too are less refined and organically grown food products.

For example: Oranges imported from California travel more than 15,000 km (≈ 800 kgCO₂/tonne-oranges moved) to get to Perth. Comparatively those coming from local areas such as GinGin or Perth Hills have to only travel about 100 km (≈ 20 kgCO₂/tonne-oranges moved) to get to city.

10a. Are you currently stocking many WA products? Yes No

10b. If YES – What are your main driving forces? _____

10c. If NO – What is stopping you from doing so?
Prompts: Perceived as uneconomical, Lack of knowledge about suppliers, others

11a. Are you stocking any organically grown products? Yes No

11b. If YES – What are your main driving forces? _____

11c. If NO – What is stopping you from doing so?
Prompts: Perceived as uneconomical, Lack of knowledge about suppliers, others)

12. How valuable do you perceive an 'Environmental Image' or a 'Green Brand' for your business? Low Somewhat Low Uncertain Somewhat High High

- 13a. Have you got any ideas of your own to take your business on a more environmentally friendly path? Yes No
 (Maybe in the areas of operations, infrastructure, product stocking, etc)
- 13b. What have been / could have been the primary barriers to implementing your ideas? _____
 (Prompts: Capital Outlay, Lack of adequate knowledge, lack of support from employees, local council etc) _____
- 13c. What were some of the ideas? Are they still in operation? What has been your motivation for the ideas? (Prompts: Environmental concerns, Marketing Strategy, Monetary Savings) _____
14. How valuable would you consider one-on-one (free & confidential) advice from an Enterprise Facilitator i.e. Small enterprise advisor / negotiator to help you materialise your ideas and guide your business towards a sustainable path? _____
 For example:
 - Link you with experts from the required field
 - Provide a list of organic product mfg / suppliers
 - Provide technical advice
- 15a. Do you currently separate your waste into organic and recyclables? Yes No
- 15b. What do you currently do with your organic waste? (Fruit, Vegetables, Meat, etc) _____
- 15c. What do you currently do with your recyclables? (Cardboard, Packaging, Plastic) _____
- 15d. Do you currently have to pay for your waste disposal? If YES – How much? _____
- 16a. Any previous Energy Audit conducted at workplace? Yes No
- 16b. If YES – When was the Energy Audit Conducted? _____
- 16c. Energy Efficiency measures implemented: _____
 (Eg: CFLs, Timer Switches, Window glazing, E.E. appliances)

- 16d. If no E.E. measures implemented, Why? _____

17. Major Electrical / Gas appliances at workplace:

18. Utility bills (Electricity / Gas / Water): Self-payment Fixed cost in rent
- 19a. What is the size of energy cost for your business? _____
- 19b. Is it a significant portion of your total annual overheads? Yes No
20. Type of Electricity Tariff: Fixed Rate _____
 Time-of-Use _____

Ask Business Specific Questions

21. Would you like to add anything more? _____

22. Are you personally interested in finding out more on how to lead a more environmentally friendly life? Yes No

Leave your business card.

THANK YOU

This questionnaire will help us design a better and more effective greenhouse gas abatement program

Business Specific Questions

Delis / Groceries / Supermarkets

1. Security lights (Type & Wattage – Own Observation) _____
 Period of operation at night _____
2. Periodic replacement of door seals of Yes (how often) _____

- chillers/freezers/refrigerators? No
3. Do you choose new appliances based on: Capital cost Running cost
Both Others
4. Do you keep the door open (or ventilation fans ON) while running a/c or heater? Yes No
5. Do have water urns / water heaters? Yes No
Are they kept ON overnight? Yes No
6. Do you practice 'no cost' energy conservation practices? Yes No
If YES, list some:
For example:
- Turn off lights of used rooms such as storage rooms
- Maximise the use of day-lighting
- Use correct thermostat settings for heaters, freezers
- Promote E.E. practices amongst staff members
-
-

Café / Lunch Bar / Restaurant

1. Security lights (Type & Wattage – Own Observation) _____
Period of operation at night _____
2. Do you keep the door open (or ventilation fans ON) while running a/c or heater? Yes No
3. Do have water urns / water heaters? Yes No
Are they kept ON overnight? Yes No
4. Do you choose new appliances based on: Capital cost Running cost
Both Others
5. Do you keep hot water tap running while cleaning dishes? Yes No
6. Do you practice 'no cost' energy conservation practices? Yes No
If YES, list some:
For example:
- Turn off lights of used rooms such as storage rooms
- Maximise the use of day-lighting
- Use correct thermostat settings for heaters, freezers, dish washers, ovens, etc
- Promote E.E. practices amongst staff members
-
-

Normal Shops (eg: Pharmacy / Newsagent / Beauty Saloon / Liquor Store etc)

1. Security lights (Type & Wattage) _____
Period of operation at night _____
2. Do you keep the door open while running a/c or heater? Yes No
3. Do have water urns / water heaters? Yes No

- Are they kept ON overnight? Yes No
4. Do you choose new appliances based on: Capital cost Running cost
Both Others
5. Do you practice 'no cost' energy conservation practices? Yes No
- If YES, list some: _____

- For example:
- Turn off lights of used rooms such as storage rooms
 - Maximise use of day-lighting
 - Use correct thermostat settings for heaters, freezers
 - Promote E.E. practices amongst staff members

7.2 APPENDIX II – FOOD PROCESSING SURVEY QUESTIONNAIRE



GREENHOUSE GAS ABATEMENT – BUSINESS PROGRAM (Survey of Food Processing Businesses)

Notes for introductory comments:

Confidentiality Statement: Individual responses are kept confidential. Your responses will only be used to help the project team design a more effective and successful program.

Where it fits in: This project is part of a wider program currently being developed by the council partnership to tackle climate change (global warming). Seven councils are collectively dedicating resources to reduce greenhouse gas emissions from council infrastructure, vehicle fleets, and in the wider community the residential sector. Now we are focusing on your own sector (i.e. small & medium sized food processing businesses).

Purpose: The purpose of this survey is to:

- Identify interest and opportunities in reducing GHG emissions in your sector.
- To find out if business owners / managers such as yourself already have any ideas for improving the environmental performance of your business, but haven't been able to materialize the ideas due to one or more barriers.
- We also want to find out if you have any environmental concerns, and how valuable do you perceive free and confidential services of an Enterprise Facilitator.

Survey Questionnaire

1. Business Name: _____
2. Business Type: _____
3. Name (& Position) of the person interviewed: _____

4. Current form of workplace ownership: Renting
Mortgage
Own outright
5. How long has the business been in operation? _____
6. Number of employees: Full-time permanent _____
Part-time permanent _____
Full-time temporary _____
Part-time temporary _____
7. Member of any local business / industry association? Yes No
Name: _____
- 8a. Environmental issue/s of greatest concern to your business (if any) _____
- 8b. Environmental issues/s of greatest concern to your customers (if any) _____
9. How valuable is an 'Environmental Image' or a 'Green Brand' for your business? Low Somewhat Low Uncertain Somewhat High High
- 10a. Has the business currently or in the past had any **ideas or plans** to improve its environmental performance ? Yes No
Perhaps energy or water efficiency of processes?
(Maybe in the areas of operations, infrastructure, product storage, transportation etc)
- 10b. What have been / could have been the primary barriers to implementing your ideas?
(Prompts: Capital Outlay, Lack of adequate knowledge, lack of support from employees, local council etc) _____

- 10c. If ideas already implemented, what were some of the ideas?
Are they still in operation? _____
What has been your motivation for the ideas? (Prompts: Environmental concerns, Marketing Strategy, Monetary Savings) _____

11. How valuable would you consider one-on-one (free & confidential) advice from an Enterprise Facilitator i.e. Small enterprise advisor / negotiator to help you materialise your ideas and guide your business towards _____

your ideas and guide your business towards better environmental performance?

- Link you with experts from the required field
- Provide technical advice about energy efficient products
- Perhaps link you with low interest rate finance providers

- OR another approach??
- 12a. Do you separate your waste streams into organic (solid & liquid) and recyclables? Yes No
- 12b. What do you currently do with your solid organic waste? _____
- 12c. Do you have substantial quantities of liquid organic waste? – How do you dispose it? _____
- 12d. What do you currently do with your recyclables? (Cardboard, Packaging, Plastic) _____
- 12e. Do you separate your canteen waste from the plant waste, in particular recyclables? _____
- 12f. Do you have to pay for your waste disposal? If Yes – How much? _____
- 13a. Do you have substantial annual water costs? (Qualitative or Quantitative) _____
- 13b. Do you have significant hot water waste? Yes No
- 13c. Do you have any heat recovery systems installed and / or do you filter & reuse water?
Heat Recovery Water Reuse No measures N/A
- 14a. Any previous Energy Audit conducted at workplace? Yes No
- 14b. If YES – When was the Energy Audit conducted? _____
- 14c. Energy efficiency measures implemented: _____
(Eg: Process Change, High Eff Motors, Heat Recovery)
- 14d. If no E.E. measures implemented, Why? _____
(Eg: Capital Outlay, Process downtime, low priority)
- 15a. What are your annual electricity costs? Is it a significant portion of your total annual overheads? _____

- 15b. overheads? Yes No
16. Type of Electricity Tariff: Fixed Rate _____
Time-of-Use _____
17. Would you like to add anything more?

Leave your business card.

THANK YOU

This questionnaire will help us design a better and more effective greenhouse gas abatement program