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rising

A Survey of Community  
Understanding & Responsiveness  
To the Twin-Challenges of Climate  
Change and Rising Energy Prices  
(Peak Oil):  
Perspectives of Municipal Leaders  
in Midwestern Ontario

March  
2011

Rural Ontario Facing Climate Change and  
Rising Energy Prices (Peak Oil)

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UNIVERSITY  
of GUELPH

Midwestern Ontario Regional  
Green Jobs  
Strategy



MITACS

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## **I. Background**

A questionnaire was devised to gauge community leader understanding and receptiveness to discussing issues associated with the twin challenges of climate change and rising energy prices (peak oil).

The questionnaire was intended as an initial step in identifying Ontario municipalities' capacity to respond to climate change and the impact of rising oil prices (peak oil). It was hoped that the survey would uncover innovative practices, and future-oriented strategies to dealing with these challenges.

The survey was sent out to 68 municipalities in Midwestern Ontario via a Survey Monkey web online survey service. Over the month of March 2011, 29 responses were received which generated a response rate of 43%. This response is considered very good for meaningful research analysis. It was intended that the survey conducted in the specific area of 'Midwestern Ontario' would serve a pilot for use in other parts of Ontario later in the year. Midwestern Ontario was considered an appropriate geographic area for surveying purposes, as a MITACS Green Jobs study is underway for this area, and this survey could provide meaningful input to the research project.

Confidentiality was promised in the survey instrument (see Appendix A for copy). The survey was sent to the general contact individual that was listed with the Association of Municipalities of Ontario. In most instances the CAO and/or Clerk for the municipality completed the survey. In some larger cities/regions, the survey was completed by multiple staff identities within that municipality, e.g. finance person, operations manager, sustainability co-ordinator.

As an incentive to participate in the survey, a small 'cash inducement' was provided with the winner selected at random from the survey respondents providing contact information.

The Midwestern Ontario 'Community Responsiveness Survey' was funded through the MITACS Midwestern Ontario Green Jobs Strategy project. See the website [www.workgreen.ca](http://www.workgreen.ca) for further background.

## **II. Survey Instrument**

The Survey as outlined in Appendix 'A' consists of both closed and open-ended questions exploring the general topic of climate change and peak oil (rising energy prices). The survey was directed at the municipal official who was thought to have the best understanding of both the municipality's understanding and mechanisms to address the issues under discussion, as well as provide general feedback on what the broader community may be thinking/doing.

Based on survey feedback, the survey took approximately 10 -15 minutes to fill out, and included responses from a wide variety of municipalities from big to small. The primary respondents were classified as 'Rural.'

The responses to each one of the eighteen questions asked were compiled together and then analyzed. The details of this analysis are outlined in Appendix 'B' to this document. In addition to providing a snap-shot of the analysis of the findings to each question, a summary analysis comment has been provided on most of the individual charts in the Appendix. The following section generalizes the findings from the individual survey questions.

In addition to the specific analysis of each of the questions, the open ended questions provided some useful insights into the innovative mechanisms that are being used in Midwestern Ontario to address the challenges of climate change and rising energy prices (peak oil). Again, details on these comments may be examined in Appendix 'B', and a summary of the findings is found in the following section.

## **III. General Findings from the Survey**

The survey provided some interesting information on several topics related to the topics of climate change and rising energy prices (peak oil).

- General knowledge of challenges of climate change (CC) and rising energy prices (PO).
- Municipal leaders acknowledge short term challenges of rising energy prices as it impacts municipality budgets (operational costs) more so than longer term impacts of climate change.
- Longer term considerations given in various initiatives in some municipalities, i.e. community energy plans, OP policies.
- Municipal examples to assist in addressing issues include environmental plans/community energy plans, municipal green energy projects, use of hybrid/new low carbon fuels for operations fleet, development of LEED projects.
- Examples of community grass-root environmental initiatives that may/may not be tied directly to the twin challenges of CC/PO, e.g. transition towns, tree planting, new renewable energy projects, local food production and promotion of farmers markets.

- Survey indicates there are opportunities for greater education, and dialogue on the topic
- Opportunity to blend consideration of twin challenges of CC and PO to local economic promotion, and job generation
- Move away from ‘rising energy prices’ terminology as confusing with short-term fiscal concerns versus longer term implications of the PO topic
- Climate Change (CC) and Rising Energy Price (PO) issues are generally acknowledged with some interest by survey participants
- Long term perspective of ‘PO’ versus short term ‘Rising Energy Prices’ terminology should be clarified in survey
- Some interesting ‘best practices’ identified – often with multiple beneficial objectives

## **IV. Conclusions**

The survey indicated there is general interest in the topic, and that survey respondents were interested in knowing more of what others are doing, and what research is out there to assist in local community resiliency and adaptation opportunities.

The phrase ‘rising energy prices’ had different meanings to many of the respondents – some answered the question looking at long term ‘peak oil’ impacts on general societal change, and others responded to the question in regards to increased expenditures to the current municipal operating budget, i.e. additional fuel costs, or construction costs will increase with new asphalt prices.

Several municipalities are examining ways to become more resilient to the twin challenges of climate change and peak oil. Some have instituted sustainability plans and are examining ways to incorporate renewable energy systems into the municipality’s energy system.

## **V. Appendices - Appendix 'A' - Survey Instrument**

# Municipal Questionnaire

## 1. Introduction

Thank you for participating in this University of Guelph Study.

This questionnaire is intended as an initial step in identifying Ontario municipalities' capacity to respond to impacts resulting from climate change and peak oil (when we reach the maximum rate of global oil extraction, after which rates of production decline, leading to higher prices and potential shortages). We hope to uncover innovative practices, and future-oriented strategies.

Your responses will be compiled with all other responses from across Ontario, and will not be traced back to you in the final report.

Researchers may contact you directly for more information, should you choose to provide your contact information.

Where we had a planning department contact we sent this questionnaire directly to this department. Where we did not have this information we have provided the questionnaire to the municipal clerk or administrator. We invite these individuals to either complete the questionnaire or to direct it to the staff member most likely to have responsibility in these areas.

We are grateful for your commitment of time, and expect that this survey will take less than 10 minutes to complete. Those who provide contact information at the end of the survey will be entered into a draw for a \$100 gift certificate at Grassroot (<http://www.grassrootsstore.com/>).

This research is funded through the Ontario Ministry of Agriculture, Food and Rural Affairs partnership with the University of Guelph. If you have any questions, please contact Wayne Caldwell at [wcaldwel@uoguelph.ca](mailto:wcaldwel@uoguelph.ca).

Sincerely,

Dr. Wayne Caldwell, and the University of Guelph Research Team

## 2. Background

For the purposes of the survey, we refer to "Municipal government" as the local governing body and support staff. The term "Broader community" refers to other non-municipal community activities.

### 1. Please identify your municipality:

### 2. Please describe your personal level of awareness on the following issues:

	Completely Aware	Somewhat Aware	Neither Aware/Unaware	Somewhat Unaware	Completely Unaware
Peak Oil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate Change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Municipal Questionnaire

### 3. Please describe your municipal government's level of awareness on the following issues:

	Completely Aware	Somewhat Aware	Neither Aware/Unaware	Somewhat Unaware	Completely Unaware
Peak Oil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate Change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 4. Please describe your perception of the broader community's level of awareness on the following issues:

	Completely Aware	Somewhat Aware	Neither Aware/Unaware	Somewhat Unaware	Completely Unaware
Peak Oil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate Change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 5. Please rate your municipal government's capacity and the broader community's capacity to respond to the threats and opportunities presented by climate change and peak oil:

	1. Low capacity	2.	3. Medium capacity	4.	5. High capacity
Municipal government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broader community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 6. Is there a staff person within your municipal government who is responsible for awareness on climate change?

- Yes
- No
- Don't know

If yes, and if it is someone other than yourself please provide their title and contact information/e-mail.

### 7. Is there a staff person within your municipal government who is responsible for awareness on peak oil?

- Yes
- No
- Don't know

If yes, and if it is someone other than yourself, please provide their title and contact information/e-mail.

## 3. Community Responses to Climate Change and Peak Oil



# Municipal Questionnaire

## 1. In your locality, how often do you see evidence that the following people are planning for climate change?

	Often	Sometimes	Rarely	Never
Municipal politicians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Municipal staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Members of the broader community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please describe any evidence you see

## 2. In your locality, how often do you see evidence that the following people are planning for peak oil?

	Often	Sometimes	Rarely	Never
Municipal politicians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Municipal staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Members of the broader community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please describe any evidence you see

# Municipal Questionnaire

**3. The following activities are associated with creative response to climate change and peak oil. Please identify all that apply to your local government and/or broader community:**

	Municipal government	Broader community
Local Food Promotion	<input type="checkbox"/>	<input type="checkbox"/>
Community Economic Development	<input type="checkbox"/>	<input type="checkbox"/>
Integrated Community Sustainability Planning	<input type="checkbox"/>	<input type="checkbox"/>
Community Energy Plan	<input type="checkbox"/>	<input type="checkbox"/>
Community Energy Projects	<input type="checkbox"/>	<input type="checkbox"/>
Constructed Wetlands	<input type="checkbox"/>	<input type="checkbox"/>
Innovative practices for stormwater management	<input type="checkbox"/>	<input type="checkbox"/>
Separating sewers from stormwater	<input type="checkbox"/>	<input type="checkbox"/>
Ecosystem protection	<input type="checkbox"/>	<input type="checkbox"/>
Ecosystem restoration	<input type="checkbox"/>	<input type="checkbox"/>
Ecological waste management	<input type="checkbox"/>	<input type="checkbox"/>
Standards for ecological buildings (e.g. LEED, Net Zero)	<input type="checkbox"/>	<input type="checkbox"/>
Organized tree planting events	<input type="checkbox"/>	<input type="checkbox"/>
Energy conservation or retrofit program	<input type="checkbox"/>	<input type="checkbox"/>
Education and/or awareness events on climate change and rising oil prices	<input type="checkbox"/>	<input type="checkbox"/>
Social events around climate change and peak oil (festivals, celebrations, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Municipal procurement policies favoring local/sustainable products	<input type="checkbox"/>	<input type="checkbox"/>
Local currencies/money/Local Exchange Trading Systems/Time Banks	<input type="checkbox"/>	<input type="checkbox"/>
Transition Towns initiative	<input type="checkbox"/>	<input type="checkbox"/>

Please explain any particular municipal or community activities that you are aware of in your locality:

# Municipal Questionnaire

**4. Are you aware of creative responses to climate change and peak oil undertaken by other municipalities that you think we should be aware of? If so, please name them.**

**5. In responding to CLIMATE CHANGE, please rate your MUNICIPAL GOVERNMENT on the following:**

	1 (Low)	2	3	4	5 (High)
Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Future-orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**6. In responding to PEAK OIL, please rate your MUNICIPAL GOVERNMENT on the following:**

	1 (Low)	2	3	4	5 (High)
Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Future-orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**7. In responding to CLIMATE CHANGE, please rate your BROADER COMMUNITY on the following:**

	1 (Low)	2	3	4	5 (High)
Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Future-orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**8. In responding to PEAK OIL, please rate your BROADER COMMUNITY on the following:**

	1 (Low)	2	3	4	5 (High)
Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Future-orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 4. Geographic Information

# Municipal Questionnaire

## 1. What position do you hold in your municipality?

- Administrator/Clerk
- Municipal planner
- Other Municipal employee
- Head of Council
- Municipal Councillor
- Volunteer (please describe)
- Other (please describe)

Description:



## 2. In what Ontario region are you located?

- North-East
- North-West
- Central
- South-West
- East

# Municipal Questionnaire

## 3. How would you describe the municipality you work for?

- Remote
- Rural / Small Town
- Urban / Suburban

## 5. Contact Information

**1. All information from this survey will be aggregated to ensure confidentiality.**

**Please provide your contact information. We will not share your information.**

**Our research team may contact you for further details.**

**Those who provide contact information will be entered into a draw for \$100 at Grassroots (<http://www.grassrootsstore.com/>).**

**Please be reminded that responses from this survey will be aggregated regionally and for all of Ontario.**

**Name:**

**Email Address:**

**Phone Number:**

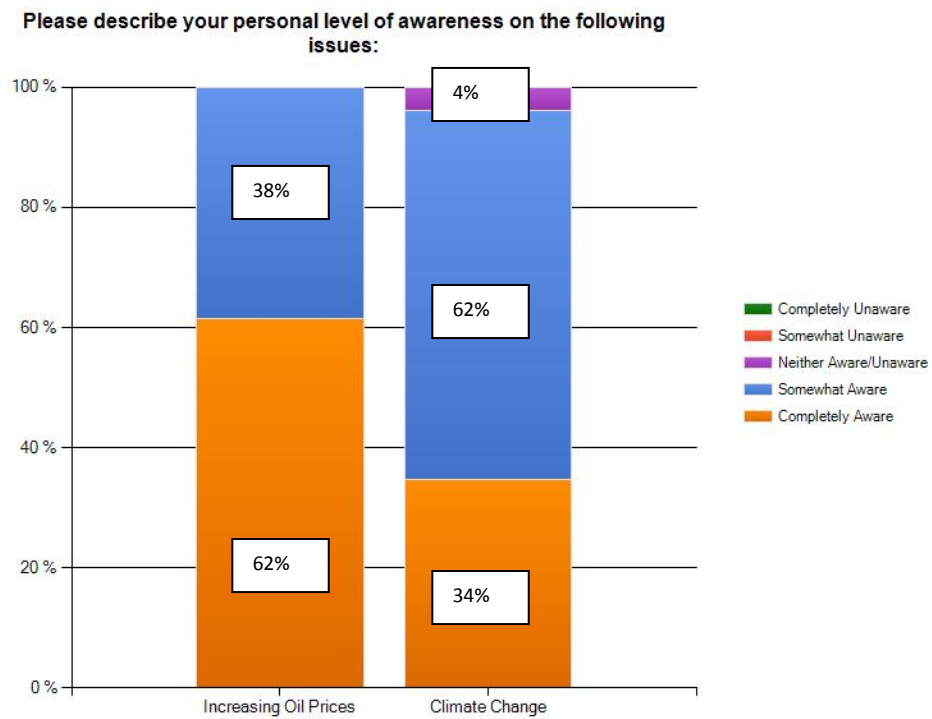
## 6. Thank you!

Thank you for your time and assistance in identifying current practice and responses in Ontario municipalities and communities.

For more information, please contact Dr. Wayne Caldwell at [wcaldwel@uoguelph.ca](mailto:wcaldwel@uoguelph.ca)

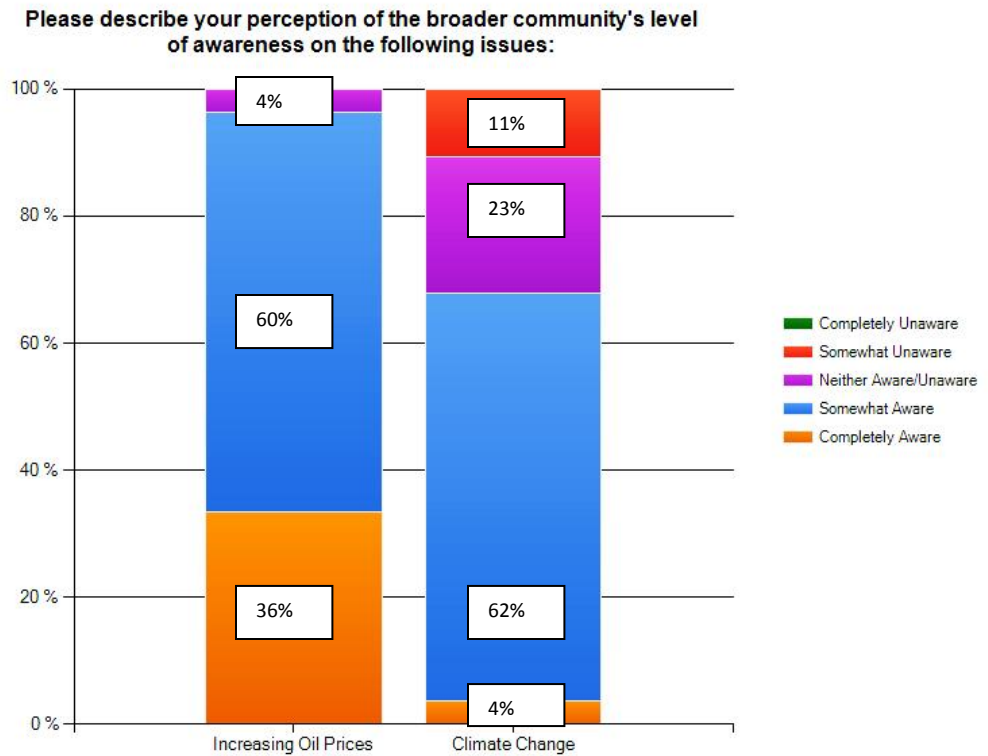
## Appendix 'B' – Detailed Survey Results

### Detailed Survey Findings- General Personal Understanding



Good knowledge of both issues (complete & somewhat), with additional better awareness of 'oil prices' than climate change

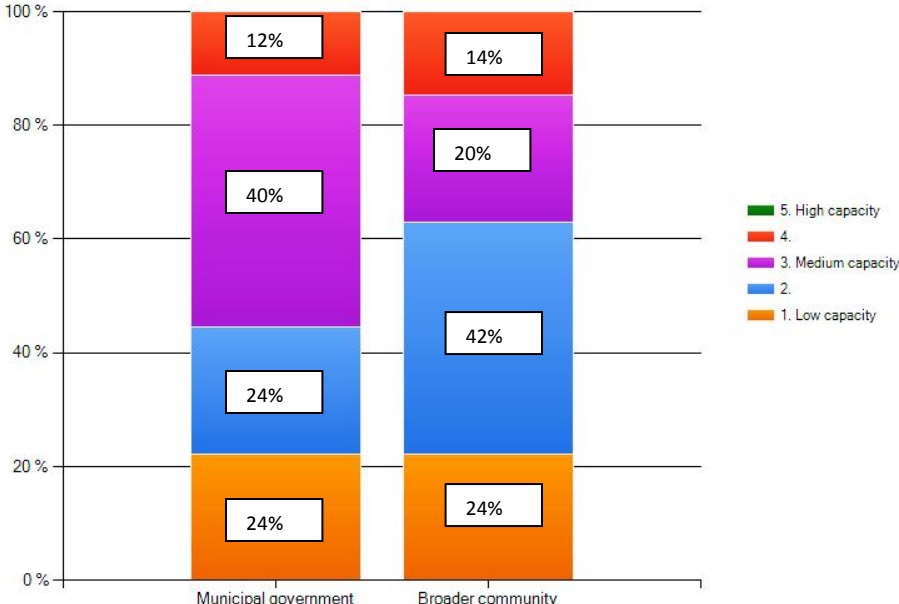
# Gauging of Community Awareness



Good knowledge of both issues (complete & somewhat), but less than 'personal awareness'; again better awareness of 'increasing oil prices' issue than 'climate change'. Some 'unawareness' of community climate change potential impacts.

# Municipal & Community Capacity to Respond to Twin Challenges

Please rate your municipal government's capacity and the broader community's capacity to respond to the threats and opportunities presented by climate change and rising oil prices:

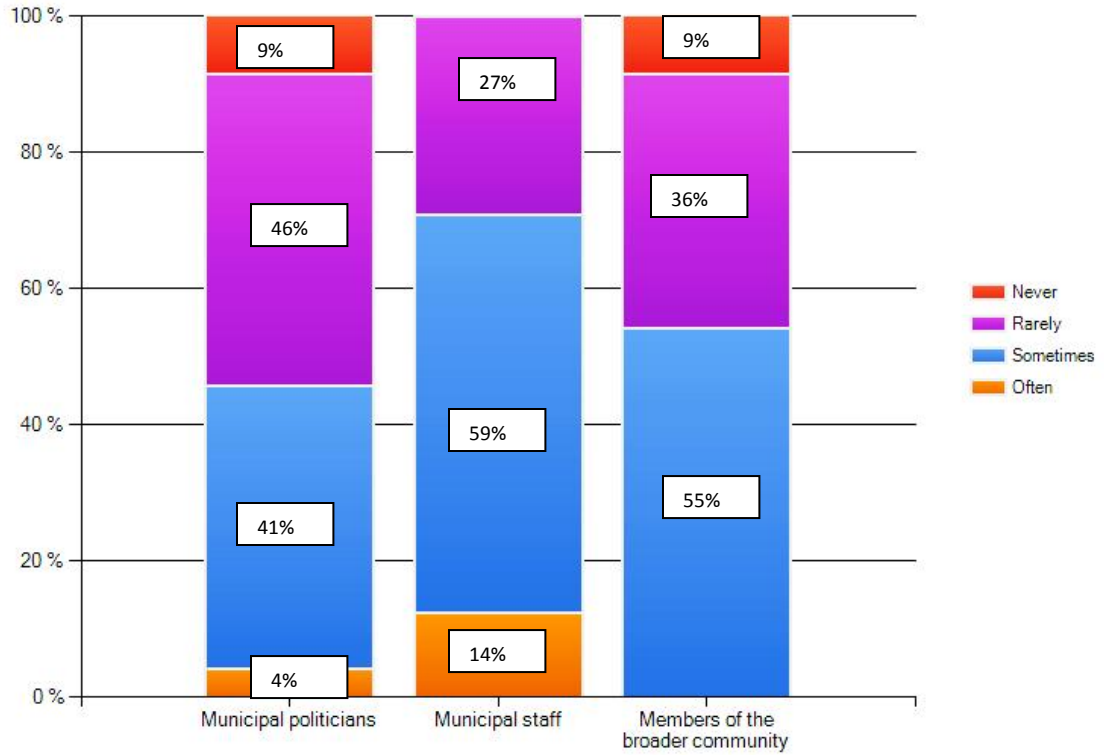


Generally 'poor or no capacity' to deal with the 2 issues, both as a municipal government as well as the general community.

MITACS Green Jobs Strategy – Survey Results of Community Leaders Regarding Climate Change/Peak Oil

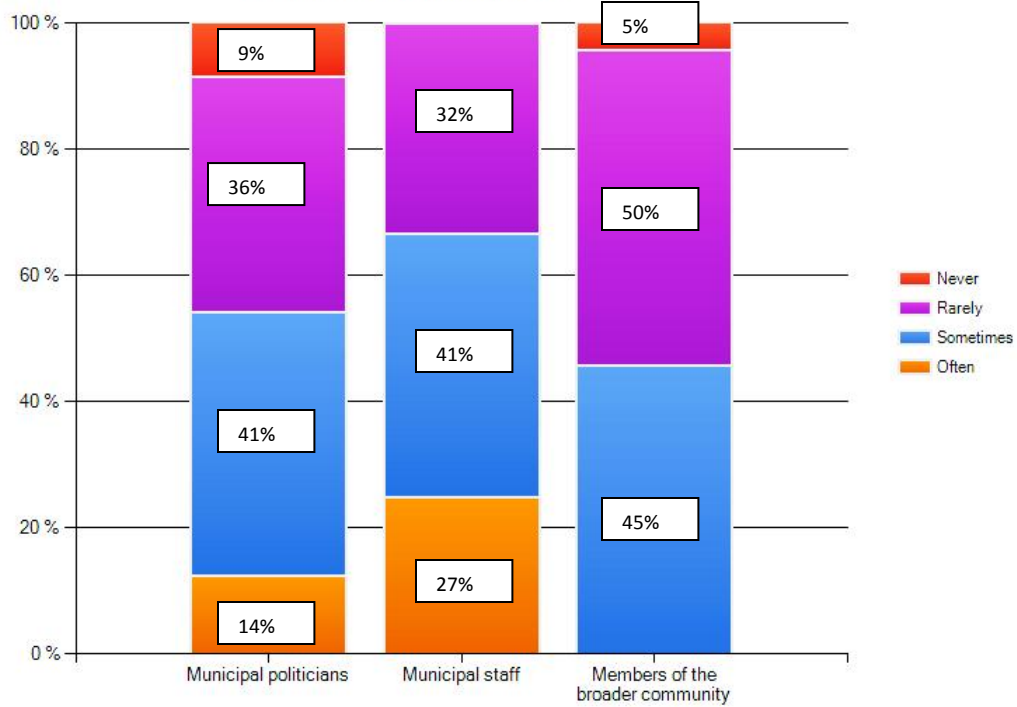


**In your locality, how often do you see evidence that the following people are planning for climate change?**



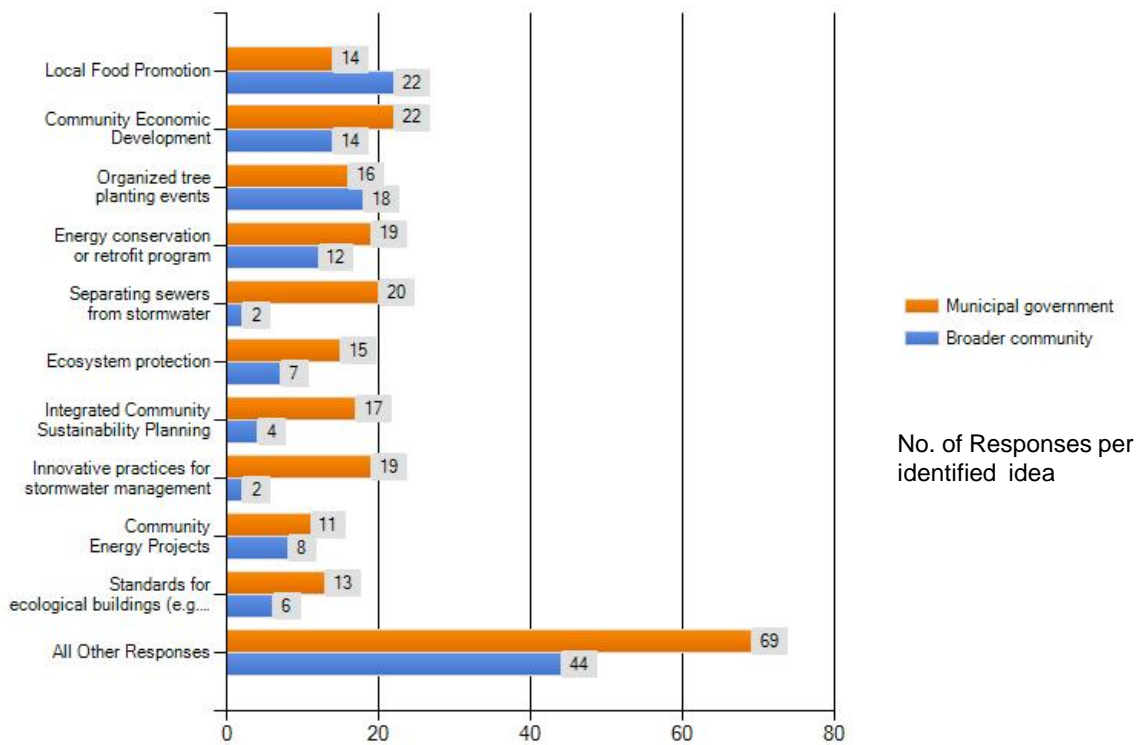
'Municipal staff' primary source of awareness regarding climate change issue; however , very small % compared to total.

**In your locality, how often do you see evidence that the following people are planning for rising oil prices?**



Similar patterns of 'planning responsiveness' for all players as for 'climate change'; somewhat higher awareness for municipal politicians/municipal staff regarding 'increasing energy prices' over climate change.

The following activities are associated with creative response to climate change and peak oil. Please identify all that apply to your local government and/or broader community:



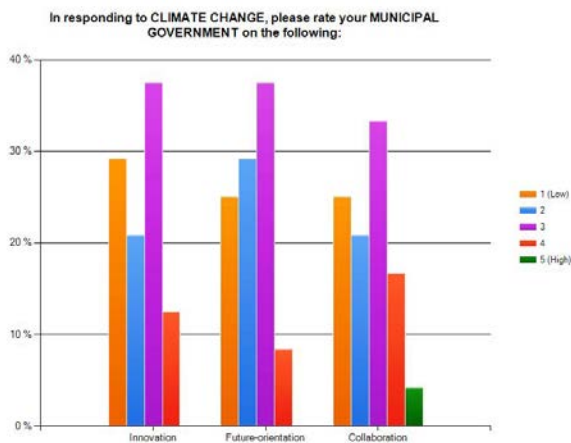
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# Survey Responses (other minority responses) plus New Ideas

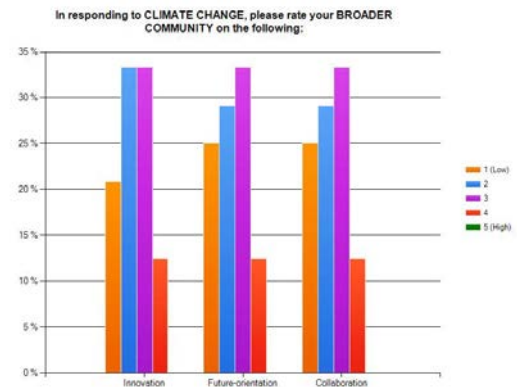
- **Survey Question with Other Minority Responses**
  - Constructed wetlands
  - Community energy plans
  - Ecosystem restoration
  - Ecological waste management
  - Education and awareness building
  - Local currencies
  - Municipal procurement policies 'favouring' local business
  - Social events organized around the issues
  - Transition town initiatives
- **New Ideas**
  - preparation of Environmental Strategic Plan with mechanisms to provide for 'green' energy conservation and renewable energy generation, i.e. green roofs, solar energy, wind energy
  - Creation of a more sustainable operations 'green' fleet, i.e. fleet optimization and right sizing vehicles including moving more towards hybrid and electric vehicles.
  - Local food promotion, i.e. renting of vacant lands in cemetery site for use as garden plots; local festivals to promote local businesses
  - Community bio-digester initiative

# Climate Change Consideration Ratings for 'Innovation, Future orientation, Collaboration'

## Government



## Community

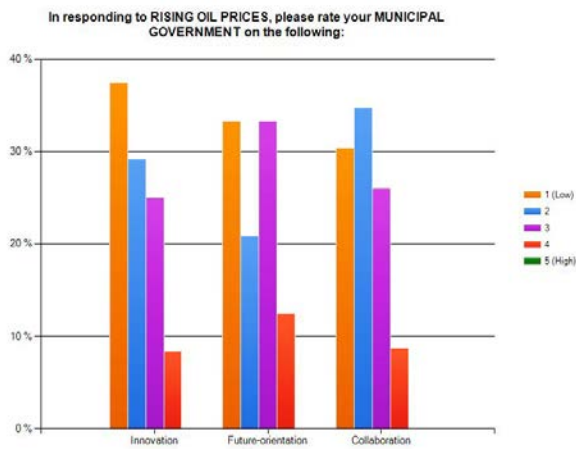


Similar patterns for both; low to medium consideration; government gets some additional acknowledgement respecting efforts on collaboration

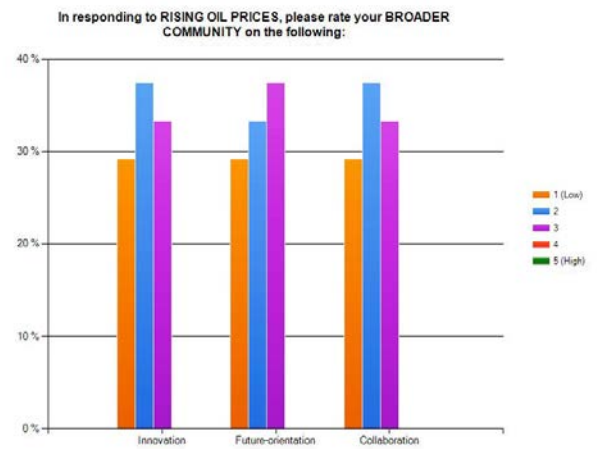
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# Rising Oil Prices Consideration for ‘Innovation, Future Orientation & Collaboration’

## Municipal Government



## Community



Similar ratings for both government/community leaders

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