Multi-agency situational awareness system (MASAS) : Transition assessment

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Prepared For:

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MULTI-AGENCY SITUTIONAL AWARENESS SYSTEM TRANSITION ASSESSMENT

FOR

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REVISION HISTORY

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Version 01	Initial document issued	26 June 2013
Version 02	Update to address client feedback	05 July 2013

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EXECUTIVE SUMMARY

This document was prepared by CAE Integrated Enterprise Solutions (CAE IES) for the Defence Research and Development Canada (DRDC) Centre for Security Science (CSS) in support of the Multi-Agency Situational Awareness System (MASAS)Transition Plan.

During the first quarter of 2013, the MASAS National Implementation Team held meetings with representatives of the Federal-Provincial-Territorial Interoperability Working Group (FPT IWG) to discuss the transition of MASAS to a sustainable business model. This transition work is outlined as an action item in the 2013 Communications Interoperability Action Plan for Canada, approved by Senior Officials Responsible for Emergency Management (SOREM). During these sessions several topics were discussed including products, services, community membership, governance, operations and a revenue model.

The purpose of the current task was to develop a web-based assessment to gather feedback from personnel with a tactical, operational or strategic role in the emergency management (EM) community. This assessment collected responses pertaining to the current and future use of the MASAS within the EM community, membership and payment for service. An analysis of the responses revealed an overall response rate of 19.7% (i.e., 144 out of 730) whereby respondents answered at least one question. This response rate is consistent with web-based surveys[1], web-based surveys that include large invitation lists[2] and in fact is higher than response rates for web-based surveys that have been reported[3] . A limitation of all surveys is that they are associated with a self-selected group of people who choose to participate. However, given the high level of consistency observed across the responses the data were interpreted to be representative of the larger EM community.

The assessment was administered to the registered MASAS users from the EM community as well as to members of the Federal Operations Centres Working Group, the FPT IWG and the vendor community. Respondents received an email invitation that contained a link that, once clicked, opened a browser where they selected the English or French version of the assessment.

The Checkbox™ application was used to gather the data from the respondents. It was also used to generate summary reports that contained descriptive data. .All data were treated anonymously in the final summary report.

The data suggest the following:

[1]Deutshens, E., Ruyter, K. Wetzels, M. &Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: an experimental study. Marketing Letters 15(1), 21-36, http://arno.unimaas.nl/show.cgi?fid=2724
[2] Hamilton, M.B. (2009). Online survey response rates and times. Ipathia, Inc. Supersurvey.http://www.supersurvey.com/papers/supersurvey_white_paper_response_rates.pdf
[3]Monroe, M.C. & Adams, D.C. (2012). Increasing response rates to web-based surveys. Journal of Extension, 50(6), 6http://www.joe.org/joe/2012december/tt7.php

Use of MASAS:

MASAS is trusted and users are satisfied with the information that is accessed through the capability. However, this capability is typically used only during an on-going emergency event. Feedback suggests that most EM organizations, especially municipal and federal levels, expect to increase usage levels within the next 12-18 months. A critical factor in increasing the usage is the perception that the adoption of the capability by other EM organizations is increasing, leading to increased information inputs and more valuable information. There is a perception that the value, accuracy and currency of the information is dependent upon participation from the wider EM community. For this reason, there is substantial support for including U.S. border states and critical infrastructure (CI) owners in the MASAS membership.

Suggested improvements to the MASAS capability were primarily concerned with updates to the features and functionalities provided through the technology that delivers the MASAS capability. This suggests that there is a need to improve the understanding of the MASAS capability. Alternatively, these data could reflect the need for improving the functionality of the system that supports situational awareness.

The EM community needs to associate the MASAS capability with the ability to improve situational awareness. This improvement in situational awareness is made possible because the EM community can access critical, geospatial information from a single location. This capability is supported by the technology that has been developed to enable the sharing (i.e., viewing and inputting) of information. This distinction between the concept of the MASAS capability and the technology that enables the capability may improve the perceived value that is associated with the MASAS capability. If improvements are to be made to the technology that underlies the MASAS capability within the next 12-18 months it would be advantageous to address improvements that highlight the MASAS capability and improve the overall usability of the tool.

Governance of MASAS:

The MASAS capability, as developed and funded by the federal government, has earned credibility within the EM community. There is support for transitioning MASAS capability to a not-for-profit (NFP) organization, however this transition will need to maintain the credibility for MASAS that is currently held by the EM community. Credibility appears to be determined by the relevance of the data that is associated with the capability, as well as the relevance of the EM personnel who have a lead role in defining the requirements for the capability.

Consensus by the EM community to use a particular standard for information exchange (e.g., Open Geospatial Consortium (OGC) standards or Organization for the Advancement of Structured Information Standards (OASIS) standards) could be easier to achieve than a legislated requirement or a mandate to use a specific technology-based system or service.

The governance for the MASAS capability will need to continue to include representation from all levels of government and particularly the stakeholders associated with SOREM, federal departments, provincial/territorial and municipal organizations.

Fees:

Most respondents do not support paying fees to have access to the MASAS capability. They are concerned that the introduction of fees will reduce adoption, and it is clear that they would like to see the current federally funded model continue. The value proposition will also need to improve which will be augmented by increased adoption. The findings suggest that MASAS, in its current state, provides insufficient value to justify paying for a service. Most of the respondents who indicated that they would both support and recommend paying for access to the capability are at the municipal level where the funding is either extremely limited, unavailable or must be approved on a year-by-year basis. Most of the municipal level respondents indicated that they would expect to pay 'less than $500 per year'. This financial context does not support a sustainable fee-based service over time.

Further, much of the information that is displayed in MASAS is available through alternate services such as Google Crisis™. The EM community must recognize that there is value associated with the ability to access and input relevant information, from a single browser-based location, which is needed to plan for and respond to an emergency event. Without this recognition of the MASAS capability, it is unlikely that EM personnel will be able to justify paying for service on a continuous basis.

Improving the overall adoption rate of the MASAS capability will require a federal-level authority, such as the governing bodies for the MASAS capability, to advocate that EM organizations adopt this approach. There are multiple methods through which this could occur, including mandating the use of the MASAS technology that underlies the MASAS capability, or recognizing the MASAS capability as a standard that must be employed by all EM organizations. Regardless, of how this capability continues to be implemented, support will be needed to train EM personnel and integrate this capability within the existing toolsets that are used within each EM organization.

1 INTRODUCTION

1.1 Background

This document was prepared by CAE Integrated Enterprise Solutions (CAE IES) for the Defence Research and Development Canada (DRDC) Centre for Security Science (CSS) in support of Multi-Agency Situational Awareness System (MASAS) Transition Plan.

During the first quarter of 2013, the MASAS National Implementation Team held meetings with representatives of the Federal-Provincial-Territorial Interoperability Working Group (FPT IWG) to discuss the transition of MASAS to a sustainable business model. This transition work is outlined as an action item in the 2013 Communications Interoperability Action Plan for Canada, approved by Senior Officials Responsible for Emergency Management (SOREM). During these sessions several topics were discussed including products, services, community membership, governance, operations and a revenue model.

1.2 Objective

The purpose of the current task was to develop a web-based assessment to gather feedback from personnel with a tactical, operational or strategic role in the emergency management (EM) community. This assessment tool collected responses pertaining to the current and future use of the MASAS within the EM community, membership and payment for service.

1.3 This Document

This document was generated to document the methodology that was used to develop the web-based assessment and to summarize the findings from the data analysis.

- Section 1: **Introduction**. This section identifies the current project objectives and provides an overview of the document;
- Section 2: **Method**. This section outlines the method used to develop the web-based assessment and perform the quantitative (i.e., descriptive statistics) qualitative data analyses;
- Section 3: **Results**. This section presents the findings from the data analyses which includes an overall summary of the findings collapsed across all participant groups and a summary of the data associated with the three levels of government ;
- Section 4: **Discussion**. This section summarizes the findings obtained during the course of the study; and
- **Appendices**: This section includes the following appendices:
    - Appendix A: Assessment tool (English and French versions);

2 METHOD

This section describes the respondents, study design and the procedure for developing the web-based assessment.

2.1 Respondents

The following participant groups were invited to complete the MASAS assessment.

- Registered MASAS users: Individuals from the EM community who had previously been identified as MASAS users were invited to participate in the MASAS assessment;
- Federal Operations Centres Working Group: Individuals who were active members of the Federal Operations Centres Working Group were invited to participate in the MASAS assessment;
- FPT IWG: Individuals who were active members of the FPT IWG were invited to participate in the MASAS assessment; and
- Vendors: Members representing the vendor community were invited to participate in the MASAS assessment.

2.2 Study Design

This section describes the activities that were developed and performed during the course of this study.

2.2.1 Acquire Background Knowledge

The study team reviewed material provided by the Project Authority (PA) prior to developing the web-based assessment. A review was performed on documentation that was relevant to the business case for transitioning the national level MASAS service from a government-funded service to a fee-based service available to the EM community.[4,5] In addition, a preliminary draft of the assessment was reviewed by the study team.[6] This documentation provided the foundation for revising the web-based assessment that would gather the necessary data.

2.2.2 Design Assumptions

The following assumptions were made during the conduct of this task:

- A list of email addresses was provided to CAE IES in electronic form which was used to invite potential respondents to complete the web-based assessment;

[4]Business Model and Governance Structure Options Analysis for the Multi-Agency Situational Awareness System. Report to Public Safety Canada by KPMG.Undated.
[5]Business Model and Governance Structure Options Analysis for the Multi-Agency Situational Awareness System. Report to Public Safety Canada. Draft for Discussion by KPMG. 27 March 2012.
[6]MASAS-X ConOps Participant Feedback Draft 130303.

- Respondents had 10 calendar days to complete the web-based assessment. This time period was referred to as the data collection phase;
- The web-based assessment was hosted by CAE and the CAE web-based assessment tool (i.e., Checkbox™) was used to administer the assessment to the respondents;
- The web-based assessment was piloted from at least three external sites to ensure that it was working properly prior to commencing the data collection phase;
- Each participant was permitted to complete the assessment one time. The assessment could be completed in a single session or over multiple sessions;
- Respondents received a url that was embedded within their email invitation. This url was used to access the assessment online;
- The data were screened and analyzed upon conclusion of the 10 day data collection phase;
- The CSS translated the English version of the assessment tool and provided the French version to CAE IES. CAE IES entered the French version into the Checkbox™ application.

2.3 Design of the Assessment Tool

The Checkbox™ tool is owned by CAE IES and was used to administer the assessment, gather data and create summary data reports. The tool was equipped with a branching capability which was used to present respondents with a set of questions that was contingent upon the answers they provided to previous questions.

The assessment was comprised of 6 main sections (see 5.4Appendix A). Each section contained a unique set of closed- and open-ended questions. The sections included in the assessment tool are briefly described below.

- Welcome Message: This section welcomed respondents to the assessment and provided background information pertaining to the study objective;
- Demographics: This section contained questions pertaining to the role of the respondents and their organizations within the EM community;
- Current and Future Usage of MASAS: This section contained questions pertainingto the current and future usage of MASAS by the respondents' organizations;
- Membership and Governance: This section contained questions pertainingto the types of organizations that could be registered subscribers to the MASAS service and the organizations that could be responsible for governing a Not-for-Profit (NFP) MASAS organization. A NFP organization was defined as a corporation that uses profits to pursue the organization's objective and does not distribute the profits to the owners.

- Payment: This section contained questions pertaining to the EM organizations' willingness to pay for the MASAS service; and

- Thank-you Message: This section thanked respondents for their assistance and indicated that the results would contribute to the transition plan for the national-level MASAS service.

2.4 Procedure

This section describes the procedure that was used to generate and administer the web-based assessment to the respondents and to gather the data. The following steps were completed:

- Generate web-based assessment

    - An English versionof the assessment tool was revised using MS Word™and was then validated by stakeholders. The assessment tool was comprised of a total of 38 questions. The branching capability was employed within Checkbox™ to ensure that respondents were presented with a subset of the total number of questions. The subset of questions was determined by the answers that were provided by the respondents; and

    - An electronic version, in both English and French, of the web-based assessment was created using the Checkbox™ application. Respondents selected their preferred language prior to commencing the assessment.

- Administer web-based assessment

    - An invitation, in both English and French, was sent via email to the potential respondents. The email invitation was generated through the Checkbox™ application. The email invitation contained two methods for accessing the assessment for each language. Respondents could either click on a hyperlink which, when clicked, routed respondents to the web-based assessment. Alternatively, respondents could click on or paste a url into a browser to be routed to the web-based assessment. Respondents were provided with an opportunity to opt out of the assessment. If this option was selected by respondents it could not be reversed within the Checkbox™ application;

    - An additional email invitationwas sent, by a government stakeholder in Public Safety, to the members of both the Federal EOC Working Group and the FPT IWG. The email invitation, presented in both languages, contained the url which, when clicked or pasted into the browser, routed respondents to the web-based assessment;

    - A name and email address was provided within the invitation that could be used by respondents to request clarification or further information at any time during or after the data collection period; and

    - A reminder email invitation was sent to all respondents, except those who had chosen to opt out of the assessment, on the seventh day of the data collection period.

- Data collection and analysis

- The data associated with the respondents' responses were saved within the Checkbox™ application. Respondents were able to complete their assessments over multiple sessions; and
- Data reports were developed within the Checkbox™ application which summarized the findings using descriptive statistics.

3 RESULTS

This section presents the results of the analyses that were performed on the data. The overall findings that were collapsed across all levels of government, private sector and non-governmental organizations (NGOs) are presented. In addition, analyses that depict the differences between the federal, provincial/territorial and municipal levels of government are reported. The separate data summaries for the federal, provincial/territorial and municipal levels of government are presented in Appendices C through E, respectively.

3.1 General Findings

This section describes a set of findings that are related to the administration of the assessment within a web-based environment.

3.1.1 Response Rate

Approximately 730 members of the EM community were invited to participate in the assessment. An analysis of the responses revealed an overall response rate of 19.7% (i.e., 144 out of 730) whereby respondents answered at least one question. An analysis of the responses indicated that 15.1% of the respondents completed the full assessment and 4.6% partially completed the web-based assessment. Further investigation of the remaining respondents revealed that 8.2%accessed the assessment but did not respond to any of the questions and 72.1% did not access the assessment.

3.1.2 Completion Time

An analysis was performed on the completion times for assessments that were fully completed by the respondents. Respondents completed the entire assessment with a median time of 13 minutes with a range of 1 to 56 minutes. Completion times in excess of 60 minutes were treated as outliers and were removed from the data set.

3.1.3 Language of Completion

An analysis of the language (English or French) used to complete the assessment was performed. The results of this analysis revealed that 89.6% and 10.4% completed the assessment in English and French, respectively.

3.2 Demographic Data

3.2.1 Overall Primary Role of Respondents within Organization

Respondents selected the definition for the type of role that was associated with their job functions. The following definitions were provided during the assessment:

- **Tactical role**: Immediate response to an incident that threatens human safety or causes the destruction of property. The response will likely last under one hour;

- **Operational role**: Response to an incident that involves the coordination of multiple agencies' resources. The response will likely last more than an hour and will likely involve activation of the appropriate emergency management organization; and

- **Strategic role**: Coordination of resources by responder and non-responder personnel to manage the implications of a major incident. This response will likely last days and will involve coordination with officials, including the potential of elected officials, from other municipal, provincial and / or federal government agencies, or agencies outside of governments involved in the management of the incident(s) in question.

An analysis of the full set of demographics data (N=144) revealed that most respondents(56.25%) performed a strategic role within their organizations. A smaller percentage of respondents performed the operational (37.50%) and tactical (6.25%) roles within their organizations (Figure 3-1).

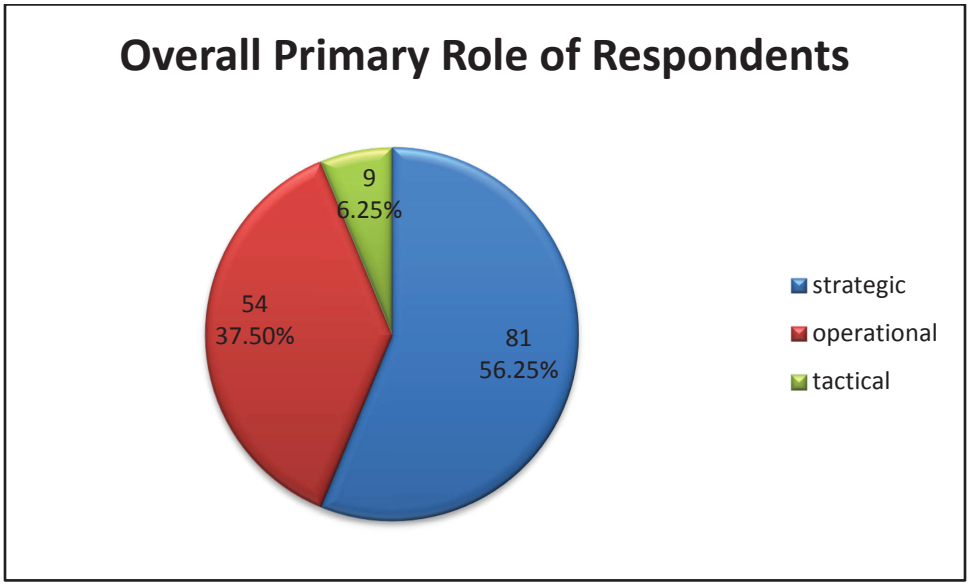

Figure 3-1: Overall Primary Role of Respondents

3.2.1.1 Primary Role Across Levels of Government

Further analysis of the responses (N=123) revealed a different pattern than that observed in the overall analysis of the data (Figure 3-2).Most of the responses (46.35%) were associated with an operational role. The provincial/territorial (18.7%) level had the highest level of operational responses compared with the federal (15.45%) and municipal (12.2%) levels. The strategic role was associated 34.96% of the responses that were associated with the levels of government. Slightly more federal (18.7%) and municipal (16.26%) level responses were associated with a strategic role compared to the operational role. None of the provincial/territorial level responses were associated with the strategic role. The tactical level role was primarily associated with the provincial/territorial level (13.01%).

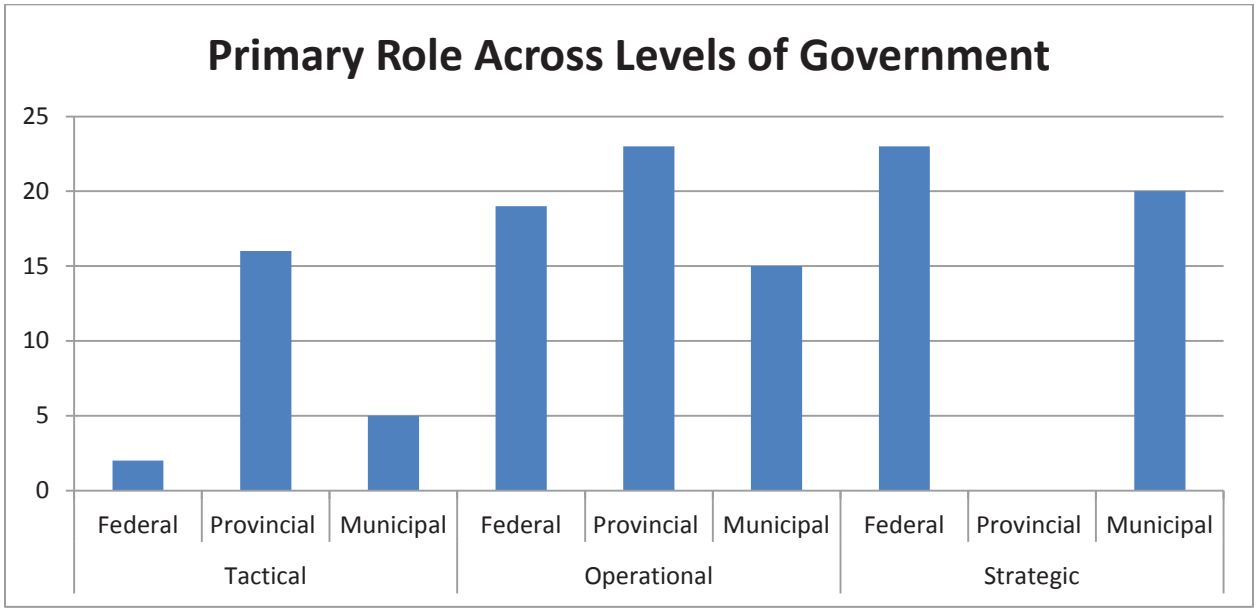

Figure 3-2: Primary Role Across Levels of Government

3.2.2 Overall Type of Organization

More of the respondents (N=144) were associated with government organizations (86.81%) than with Private Sector (5.56%) and NGO (4.86%). Finally, a subset of respondents were associated with an Other (2.78%) type of organization which included organizations related to utilities and a Crown corporation (Figure 3-3).

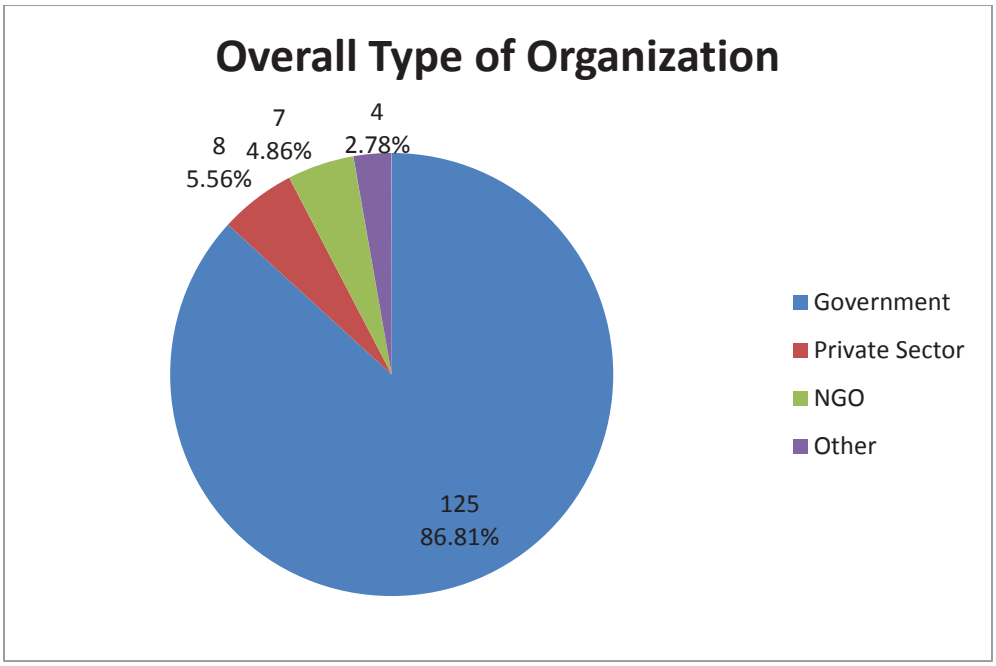

Figure 3-3: Type of Organization

3.2.3 Private Sector

Analysis of the small subset of responses (N=8) that were associated with the private sector revealed that most responses were provided from the vendor community (62.50%). Fewer responses (25%) were provided by the CI owner category which included representation from the health care and transportation sectors. Finally, one response (12.50%) was provided by a service provider (Figure 3-4).

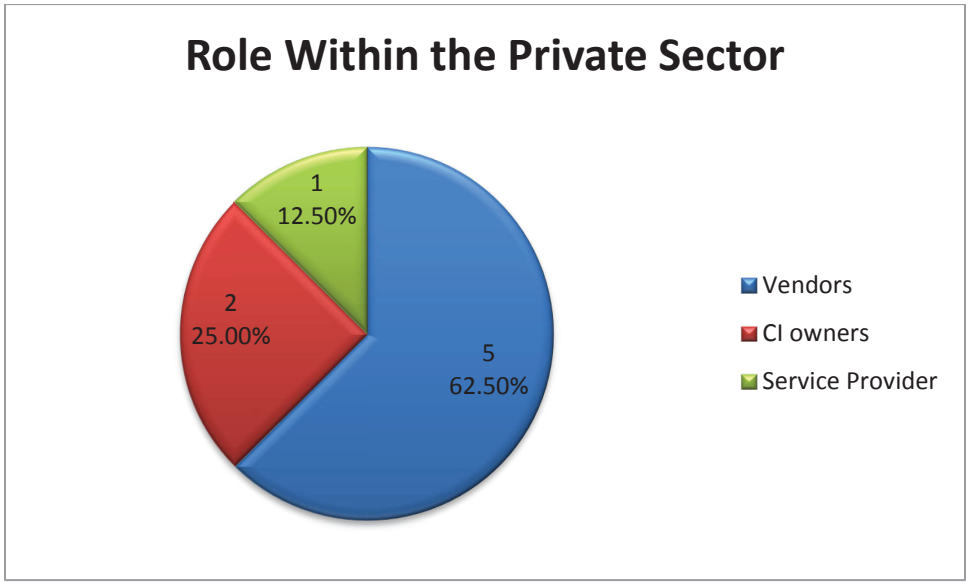

Figure 3-4: Role within the Private Sector

3.2.4 Level of Government

Further analysis (N=123) revealed that similar levels of participation were observed from federal (35.77%),provincial/territorial (31.71%) and municipal (32.52%) levels of government. None of the respondents were associated with organizations within Aboriginal governments (Figure 3-5).

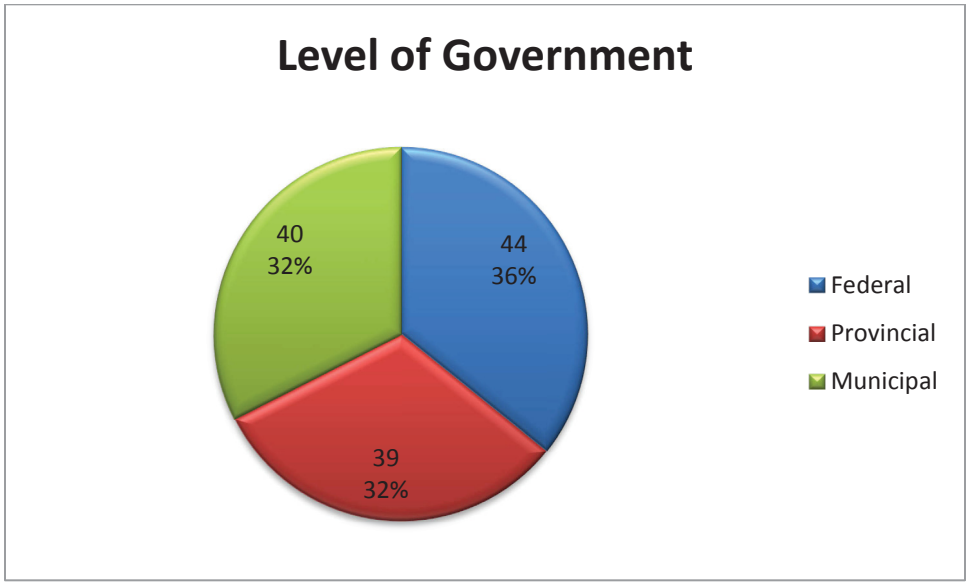

Figure 3-5: Level of Government

3.2.5 Role of Federal Level Respondents

As shown in Figure 3-6, most federal level respondents(N=44) were associated with an operational mandate (68.18%) compared to a policy and program development mandate (20.45%) or other activity (11.36%) which included a regulatory function, space science grant work and a science and policy role (Figure 3-6).

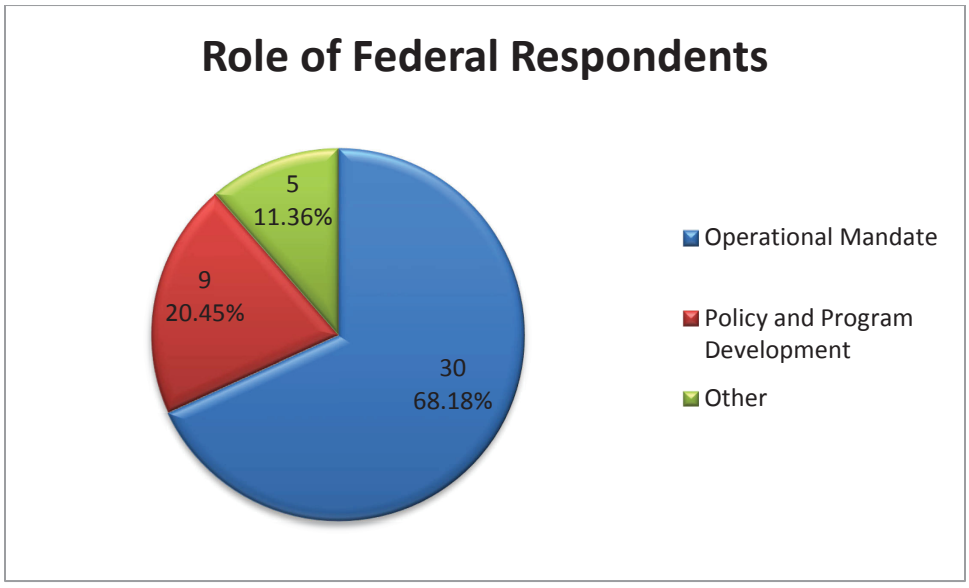

Figure 3-6: Role of Federal Respondents

3.2.6 Role of Provincial/Territorial Level Respondents

The provincial/territorial respondents (N=39) were primarily associated with an operational mandate (43.59%) but were more likely to be associated with a policy and development mandate (23.08%) than was observed at the federal level. In addition, there were more respondents (33.33%) who identified the 'Other' category as more applicable to their specific role; additional investigation revealed that these respondents performed a role that includes elements from the operational role with elements of the policy and development role (Figure 3-7).

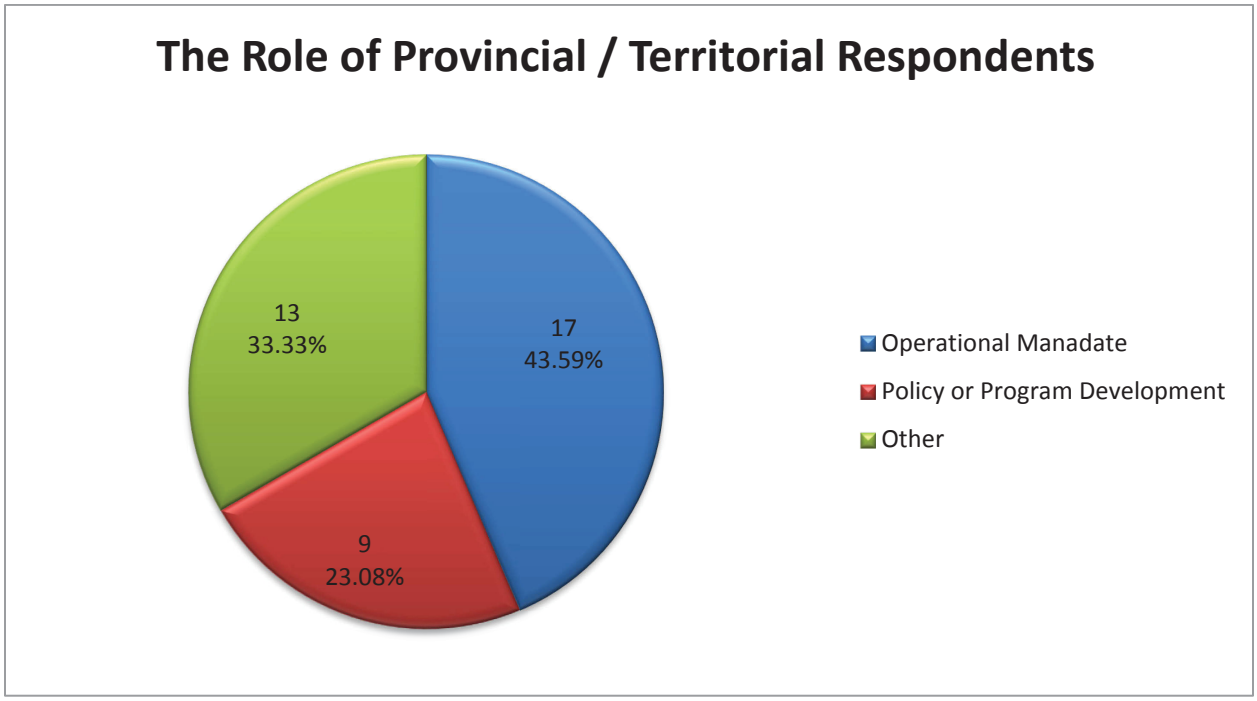

Figure 3-7: Role of Provincial/Territorial Respondents

3.2.6.1 Role of Organizations within Federal and Provincial/Territorial Levels of Government

Further analysis of these responses revealed that most federal (36.14%) and provincial/territorial (20.48%) level organizations had an operational mandate compared to the federal (10.8%) and provincial/territorial (10.8%) organizations that had a mandate concerning policy or program development (Figure 3-8).

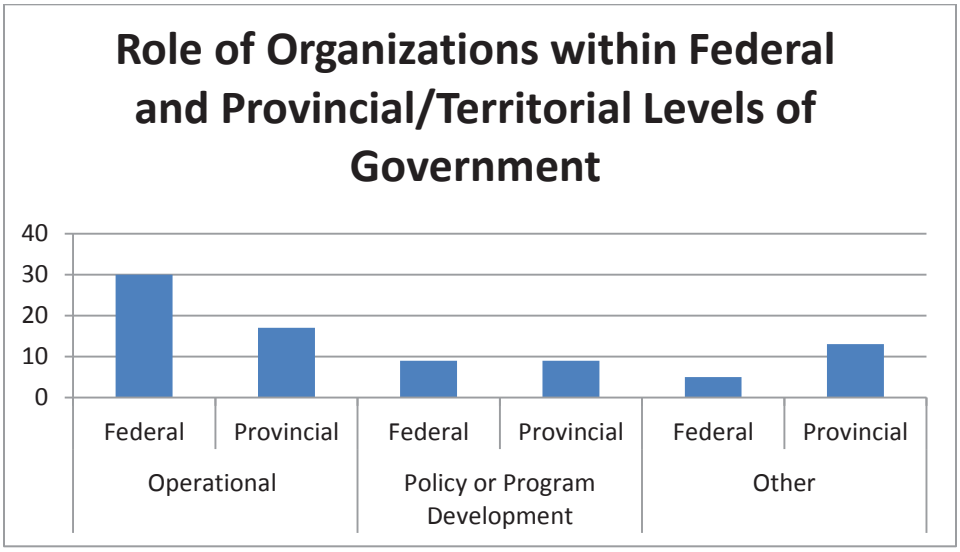

Figure 3-8: Role of Organizations within Federal and Provincial/Territorial Levels of Government

3.2.7 Population Size of Municipalities

A detailed analysis of the data (N=40) revealed that a wide range of municipalities were represented during the assessment. Most participating municipalities had over 250,000 people' (27.50%) followed by municipalities with '10, 001- 50,000 people' (25.00%),'100,001 – 250,000 people' (20.00%) and '50,001 – 100,000 people' (17.50%). In contrast, municipalities associated with 'less than 10,000 people' (10.00%) were associated with the smallest response (Figure 3-9).

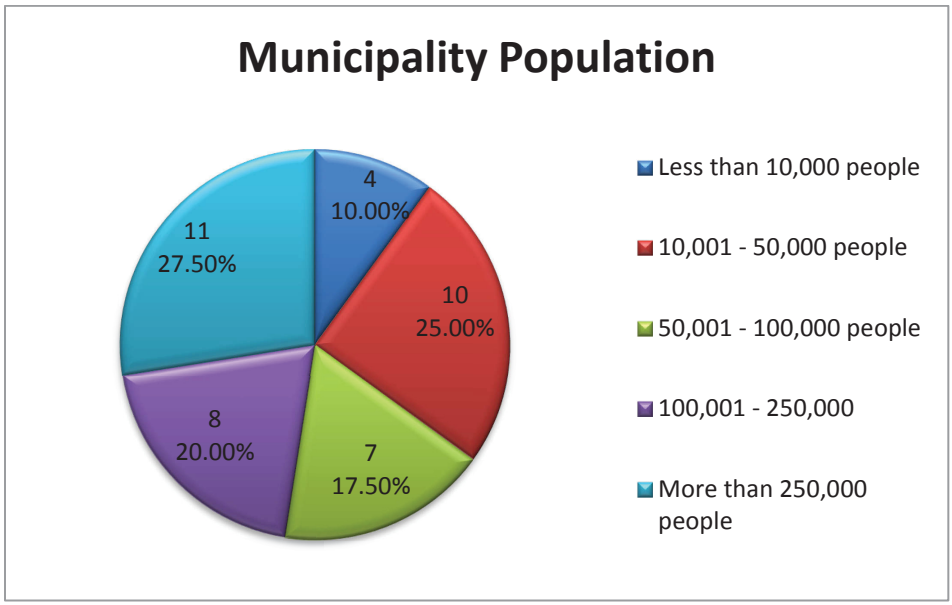

Figure 3-9: Municipality Population

3.3 Current and Future Usage of MASAS

3.3.1 Overall Frequency of MASAS Usage

An analysis of the data (N=118) associated with the current and future usage of MASAS was performed. Currently, organizations typically use MASAS only when an emergency incident is on-going (43.22%). There is a subset of organizations that typically refer to MASAS on a daily (11.02%), monthly (11.86%) or weekly (8.47%) basis. Further, 25.42% of respondents indicated that MASAS is not currently used by their organizations (Figure 3-10).

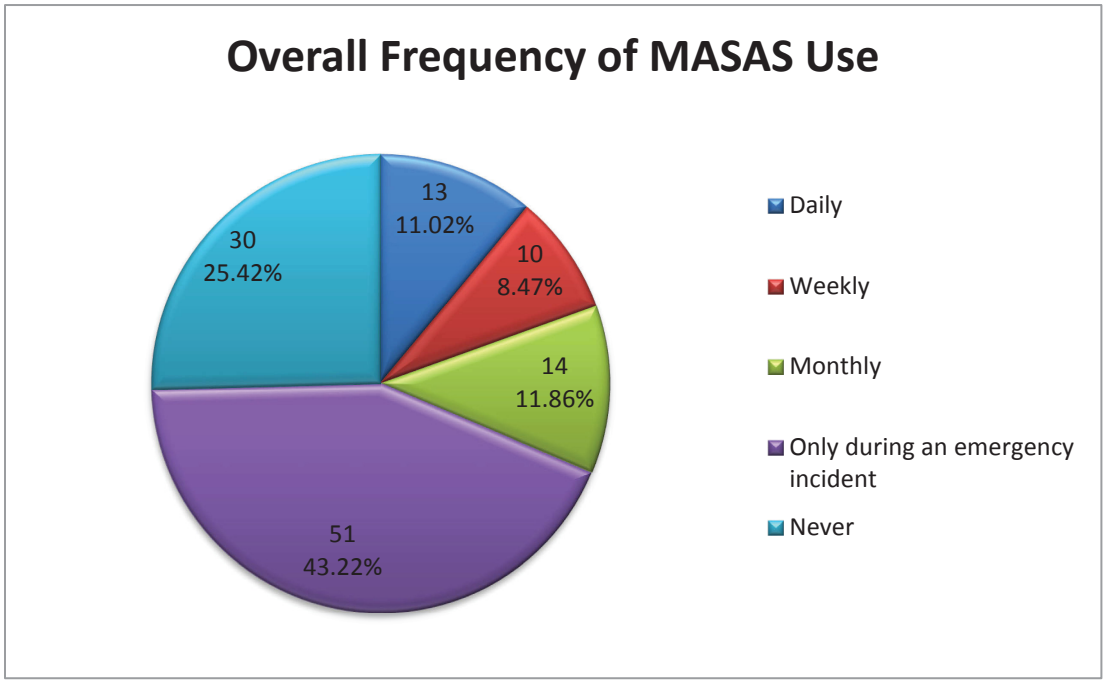

Figure 3-10:Overall Frequency of MASAS Usage

3.3.1.1 Frequency of MASAS Usage Across Levels of Government

Further analysis indicated that federal (15.53%), provincial/territorial (15.53%) and municipal (14.56%) levels of government have a similar pattern of use with respect to MASAS. That is, all three levels of government typically use MASAS only when emergency events are on-going. Most government organizations do not use MASAS on a regular basis. It is however, important to note that there are several organizations that do not use MASAS. This pattern was observed for organizations at the federal (7.77%), provincial/territorial (9.71%) and municipal (9.71%) levels (Figure 3-11).

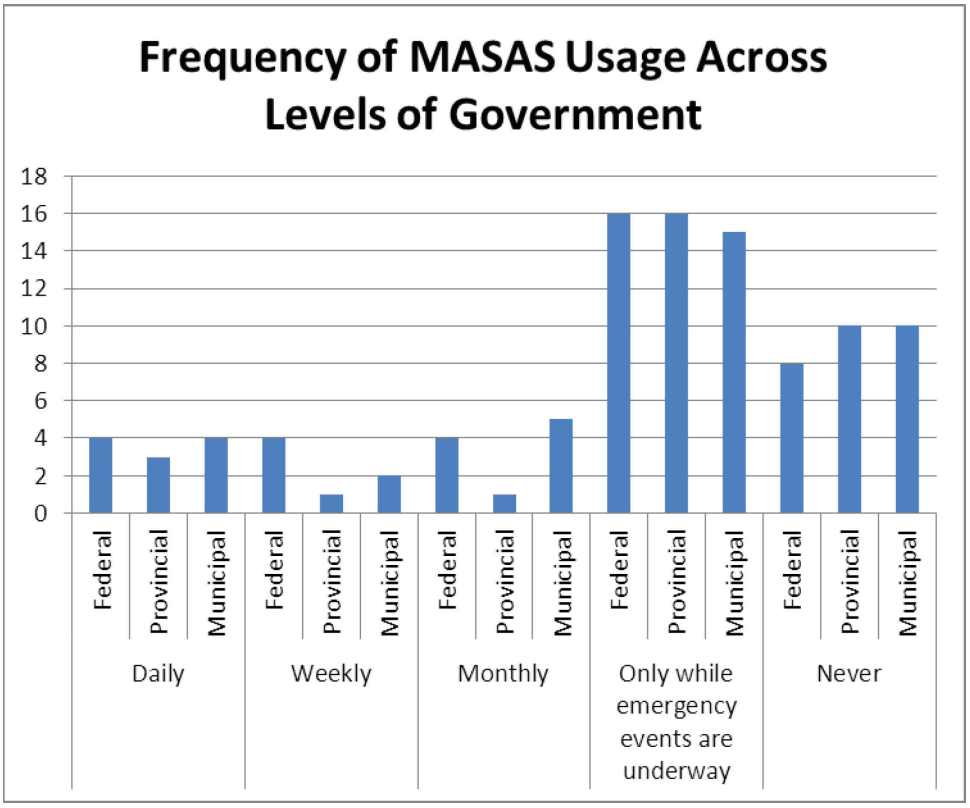

Figure 3-11: Frequency of MASAS Usage Across Levels of Government

3.3.2 Overall Usefulness of MASAS Service

Overall, 88.3% of respondents (N=117) provided a positive response regarding the usefulness of the MASAS service. A more detailed analysis of the data indicated that the usefulness of the MASAS service varied across the respondents' organizations. That is, approximately equal numbers of respondents indicated that MASAS data is 'somewhat' useful (31.62%) or 'a little useful' (28.21%) to their organization. Further, other respondents indicated that MASAS service was 'extremely useful' (7.69%) and 'very useful' (20.51%). In contrast, a small subset of respondents (11.97%) indicated that the MASAS service was 'not at all useful' (Figure 3-12).

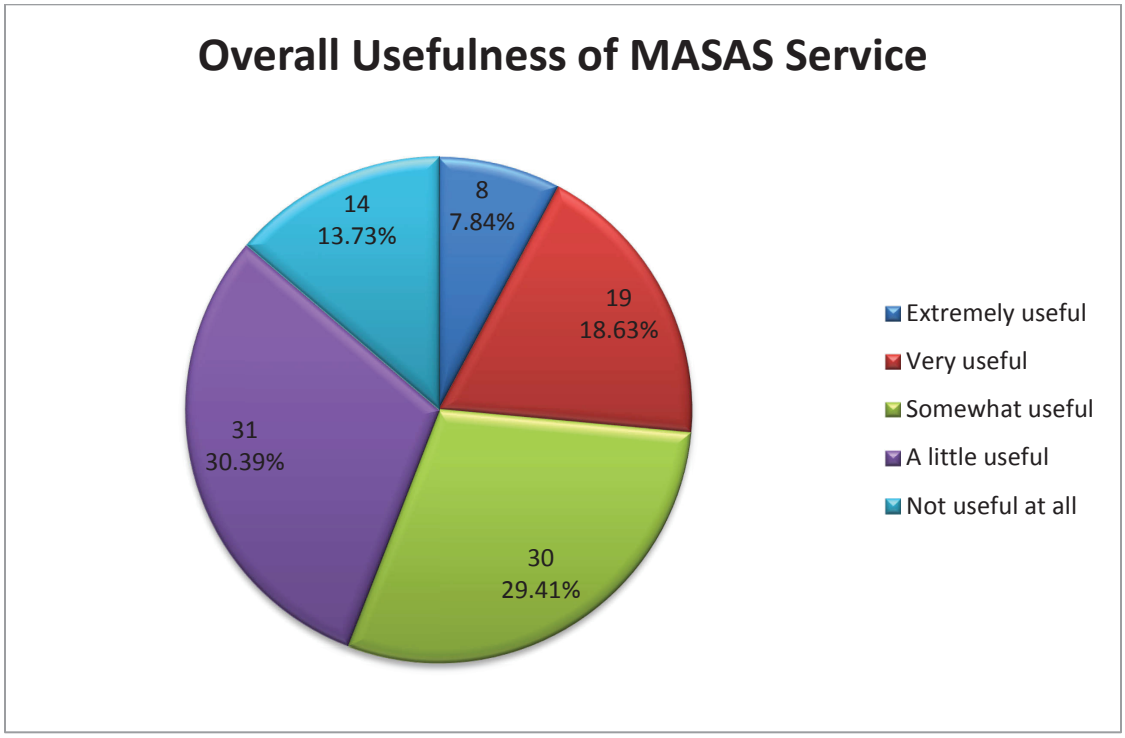

Figure 3-12:Overall Usefulness of MASAS Service

3.3.2.1 Usefulness of MASAS Data across Levels of Government

Further analysis of the responses (N=102) associated with levels of government was performed. This analysis indicated that most government respondents associated MASAS with some degree of usefulness. Most of the federal (10.78%) and provincial/territorial (11.76%) levels of government indicated that MASAS was 'a little useful' whereas, most of the municipal level respondents thought MASAS had a higher level of usefulness as 14.70% of these respondents indicated MASAS was 'somewhat useful' (Figure 3-13).

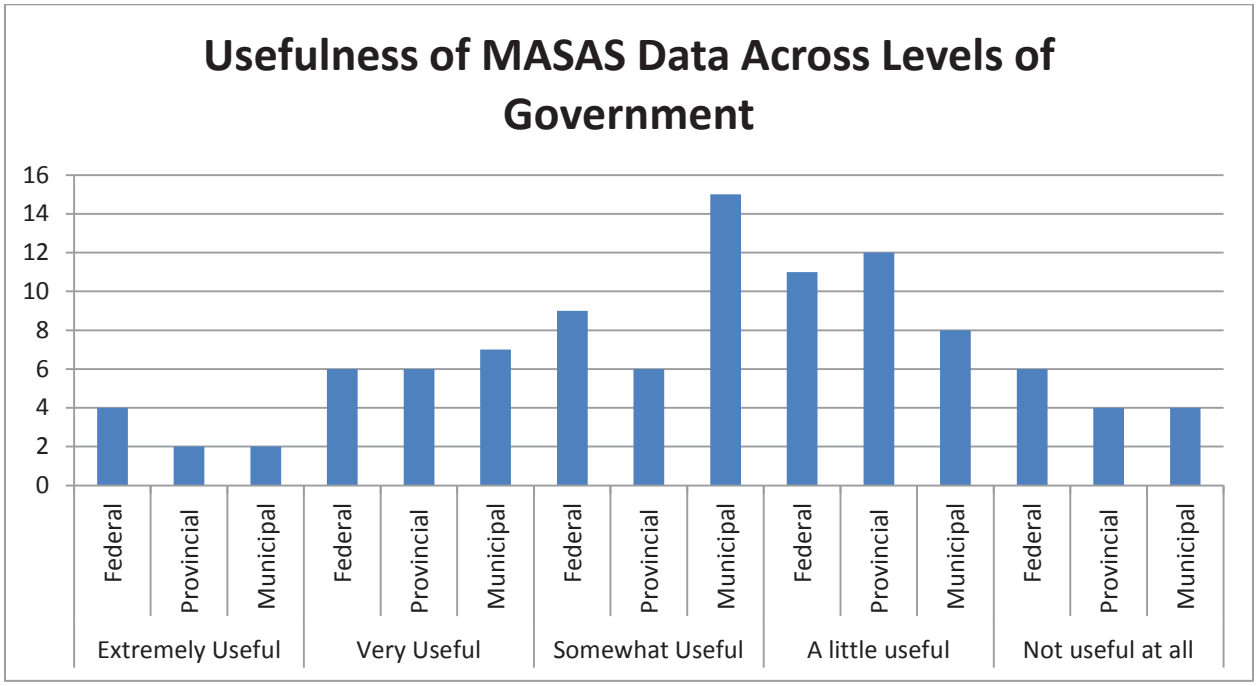

Figure 3-13: Usefulness of MASAS Data Across Government Levels

3.3.2.2 Qualitative Analysis of Data Indicating MASAS is not Useful

A qualitative analysis was performed on this small set of data (N=15) to identify the primary reasons that MASAS was not currently considered to be useful by these respondents. Comments were provided by respondents from the federal (40%), provincial/territorial (33.3%) and municipal (26.7%) levels of government. The primary reason (33.3%) that MASAS was not considered to be useful was because the capability was not being used by the EM organizations at the time the assessment was performed; half of these responses were made by federal-level respondents and the remaining responses were shared by the other levels of government. Other reasons for this response were because the EM organizations at the federal and provincial/territorial levels were not first responders (20%) and the federal and municipal levels have not yet undertaken training or explored how to use the MASAS capability (20%). To a lesser extent, the respondents (13.3%) indicated that the MASAS tool did not meet the operational requirement at the federal and provincial/territorial level because there is an infrequent occurrence of events that require Geographic Information System (GIS) data and there is too much information to absorb. Similarly, there are other tools that are used at the provincial/territorial and municipal levels that are redundant with the MASAS capability (13.3%). Finally, the provincial/territorial level indicated that there are insufficient resources available during emergencies, when MASAS is typically used, to take advantage of the capability (6.7%).

3.3.3 Overall Use of MASAS by Organizations

Respondents (N=111) selected a number of reasons from a checklist or provided additional reasons to account for how their organizations' currently use the MASAS service. Multiple responses were permitted. MASAS is primarily used to assist in planning and decision making (47.75%), inform

operational/tactical personnel (40.54%) and maintain partnerships between EM organizations (36.94%). To a lesser extent, MASAS is used to reduce risk in developing a response (20.72%). In addition, 31.53% of respondents indicated that there were 'other' reasons for using the MASAS service (Figure 3-14).

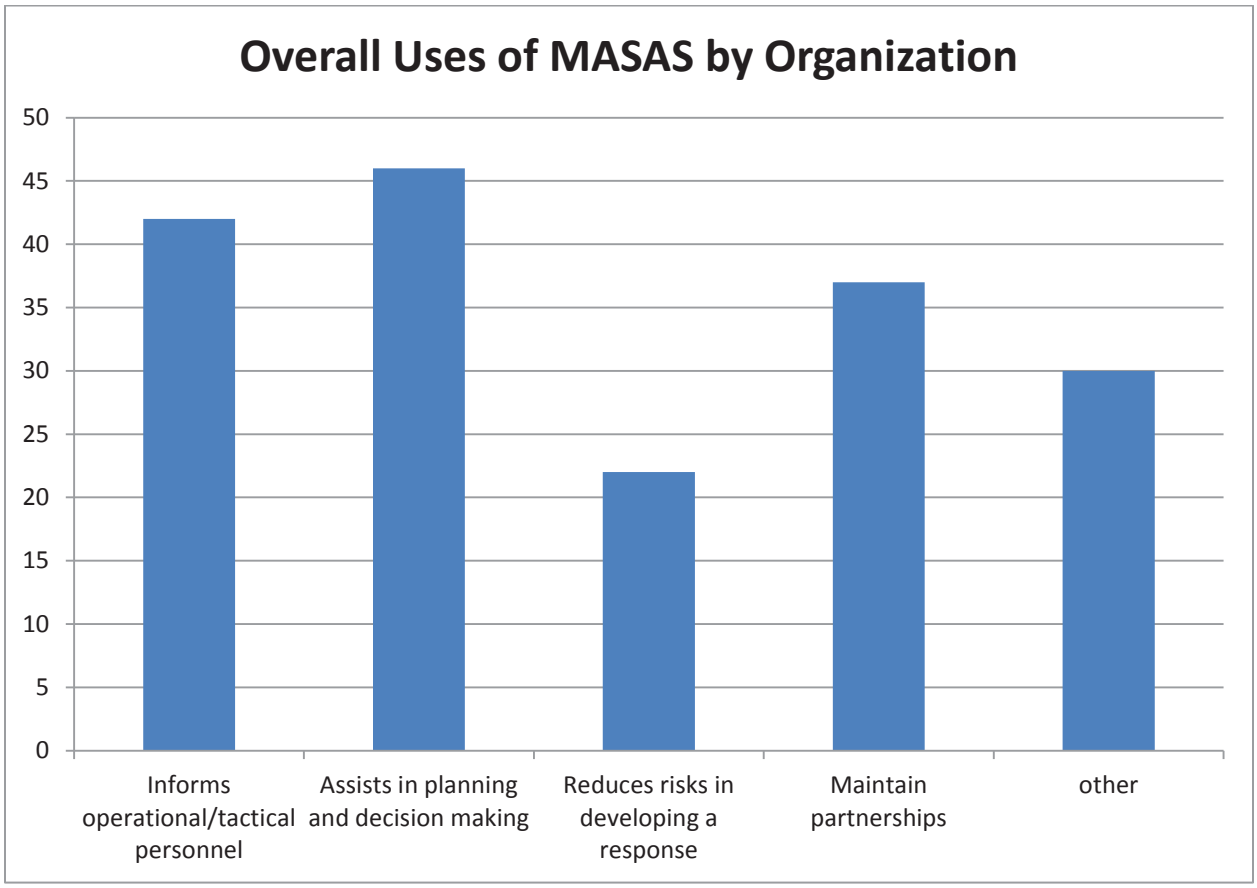

Figure 3-14:Overall Use of MASAS by Organizations

3.3.3.1 Use of MASAS Across Levels of Government

Further analysis of the responses (N=99) associated with the levels of government revealed a similar pattern regarding how MASAS is used. Most government responses regardless of level, indicated that MASAS is used to assist in planning, maintain partnerships and inform personnel. Responses associated with the provincial/territorial level were primarily focussed on informing personnel (9.04%) whereas, the primary responses at the municipal (10.17%) and federal (8.47%) levels were associated with providing assistance to planning. To a lesser extent MASAS is across all government levels to reduce risk.

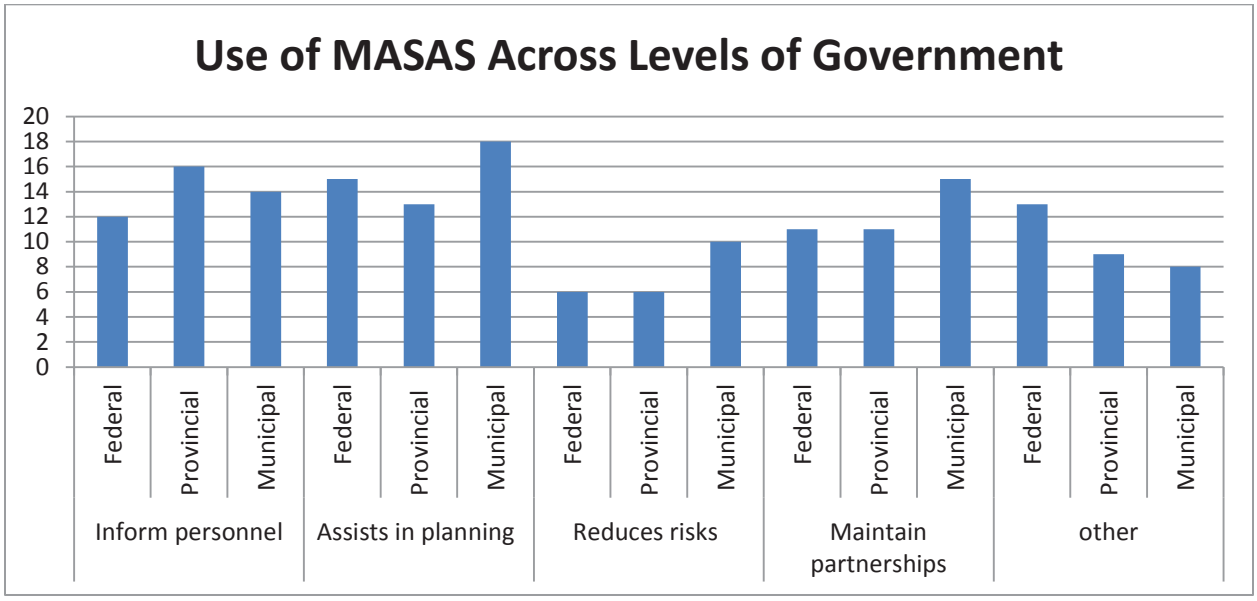

Figure 3-15:Use of MASAS Across Levels of Government

3.3.4 Overall Reasons that MASAS is Used by Organizations

Respondents (N=114) selected a number of reasons from a checklist or provided additional reasons to account for how their organizations' currently use the MASAS service. Multiple responses were permitted. MASAS is primarily used to monitor events (20.61%), maintain familiarity (20.30%), review information (19.70%) and input information (14.55%). To a lesser extent EM organizations use MASAS to maintain contact (10.30%) and train personnel (7.58%). Other reasons (6.97%) that were identified for using MASAS were primarily related to testing the system to determine how to use it within the EM organizations. Comments in the 'other' category also indicated that MASAS is not currently used within the EM organization (Figure 3-16).

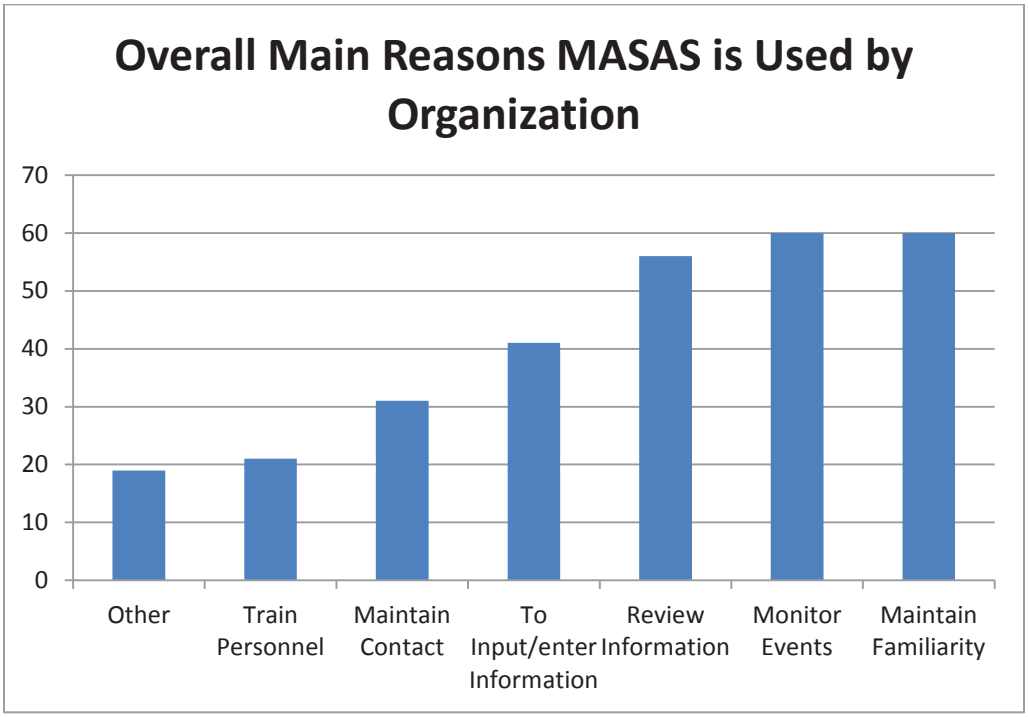

Figure 3-16:Overall Main Reasons MASAS is Used by Organizations

3.3.4.1 Main Reasons MASAS is Used Across Levels of Government

Further analysis of the responses (N=99) associated with the levels of government revealed that the federal level had a similar pattern of response that was observed in the overall data analysis. All three levels of government primarily use MASAS to maintain familiarity, monitor events, review information and input information (Figure 3-17).

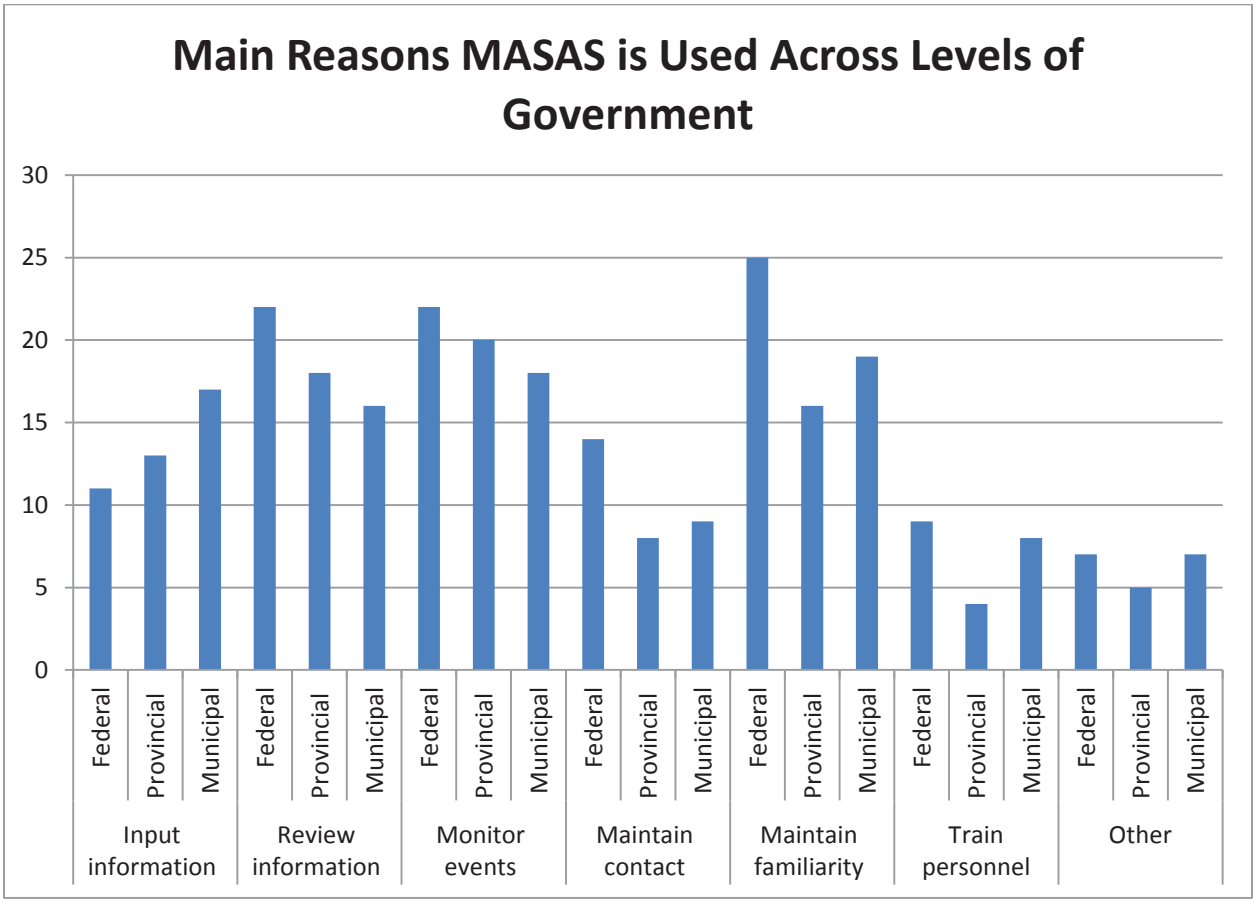

Figure 3-17: Main Reasons MASAS is Used Across Levels of Government

3.3.5 Trust in the Information Displayed in MASAS

The data analysis revealed that 87.29% of respondents (N=118) typically trust the information that is displayed within the current version of MASAS. A detailed analysis revealed that approximately half of the respondents indicated that they 'often' trust (50.85%). In addition, respondents indicated that they either 'sometimes' (21.19%) or 'always' (15.25%) trust the information that is displayed within MASAS. In contrast, a smaller subset of respondents indicated that they either 'rarely' (2.54%) or 'never' (10.17%) trusted the information displayed in MASAS (Figure 3-18).

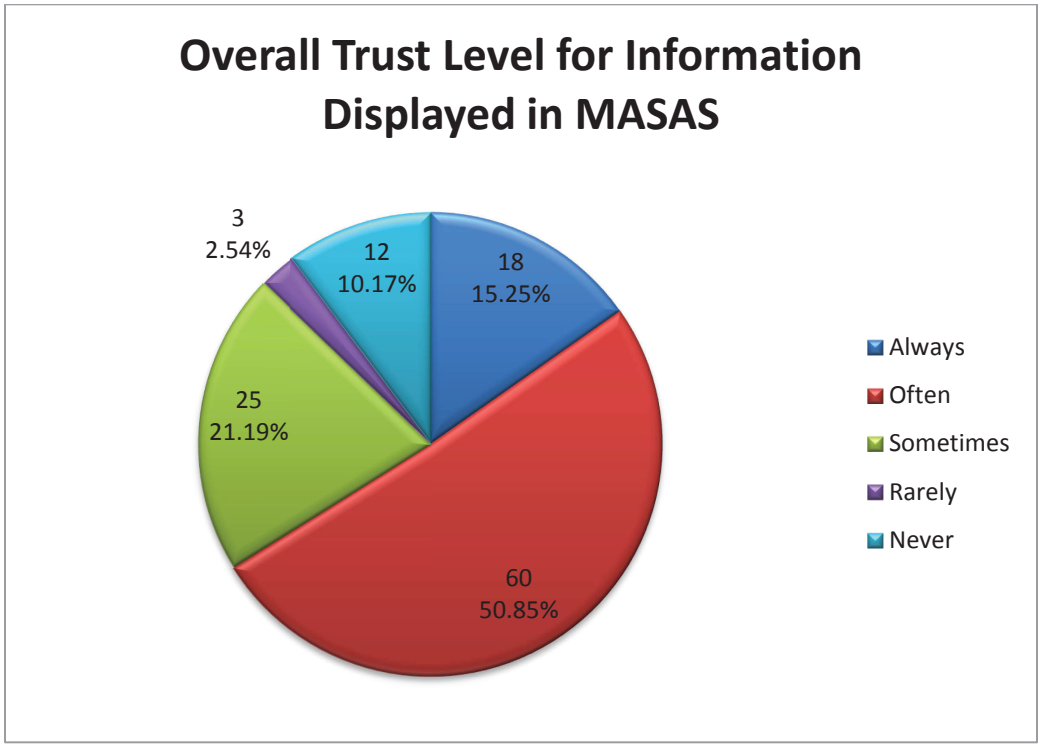

Figure 3-18:Overall Trust Level for Information Displayed in MASAS

3.3.5.1 Trust Levels Across Levels of Government

Further analysis was performed on the responses (N=103) associated with the government levels. The pattern of response was the same as that observed for the overall analysis. Most respondents associated with each level of government indicated that they 'often' trust the information displayed in MASAS. To a lesser extent, the responses associated with all levels of government indicated that respondents 'always' and 'sometimes' trust the information displayed in MASAS. In contrast, there is a subset of respondents from all levels of government who indicated that they do not trust the information displayed in MASAS (Figure 3-19).

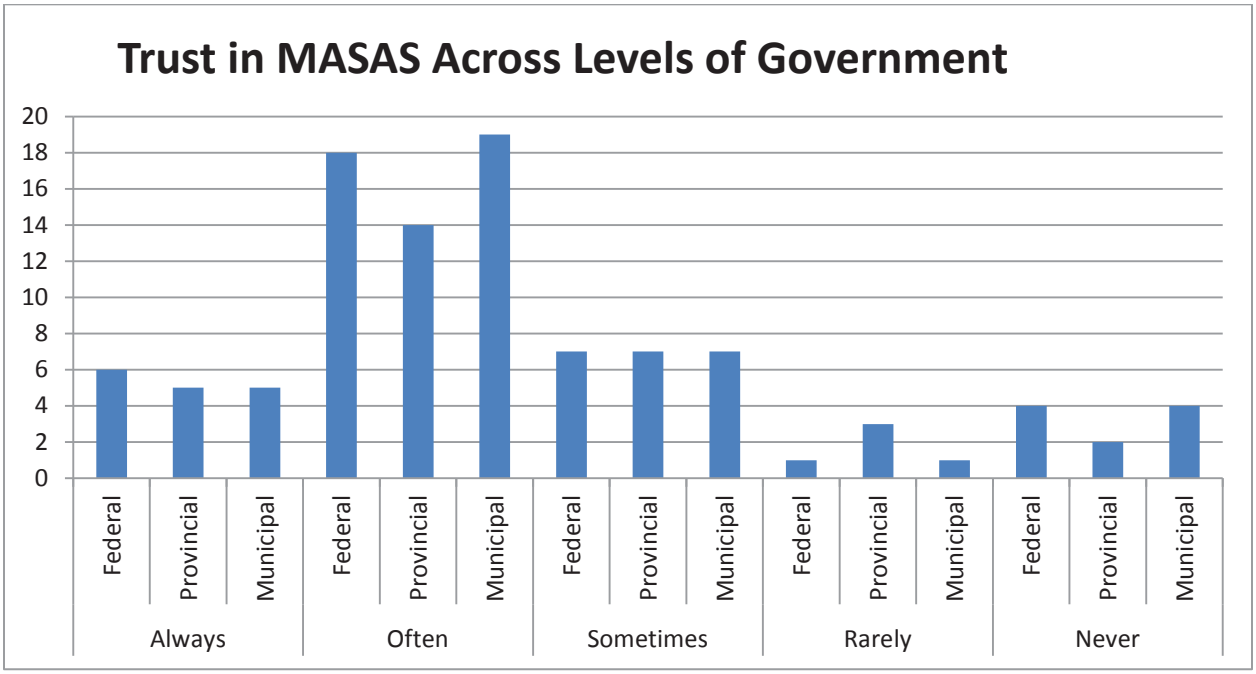

Figure 3-19: Trust in MASAS Across Levels of Government

3.3.6 Satisfaction with Accuracy of MASAS Information

Overall, 87.29% of respondents (N=118) also indicated that they were typically satisfied with the accuracy of the information. A detailed analysis revealed that approximately half of the respondents indicated that they are 'often' satisfied with the accuracy of the information displayed on MASAS today (51.69%). In addition, respondents indicated that they either 'sometimes' (21.19%) or 'always' (14.41%) trust the information that is displayed within MASAS. In contrast, a smaller subset of respondents indicated that they either 'rarely' (4.24%) or 'never' (8.47%) trusted the information displayed in MASAS (Figure 3-20).

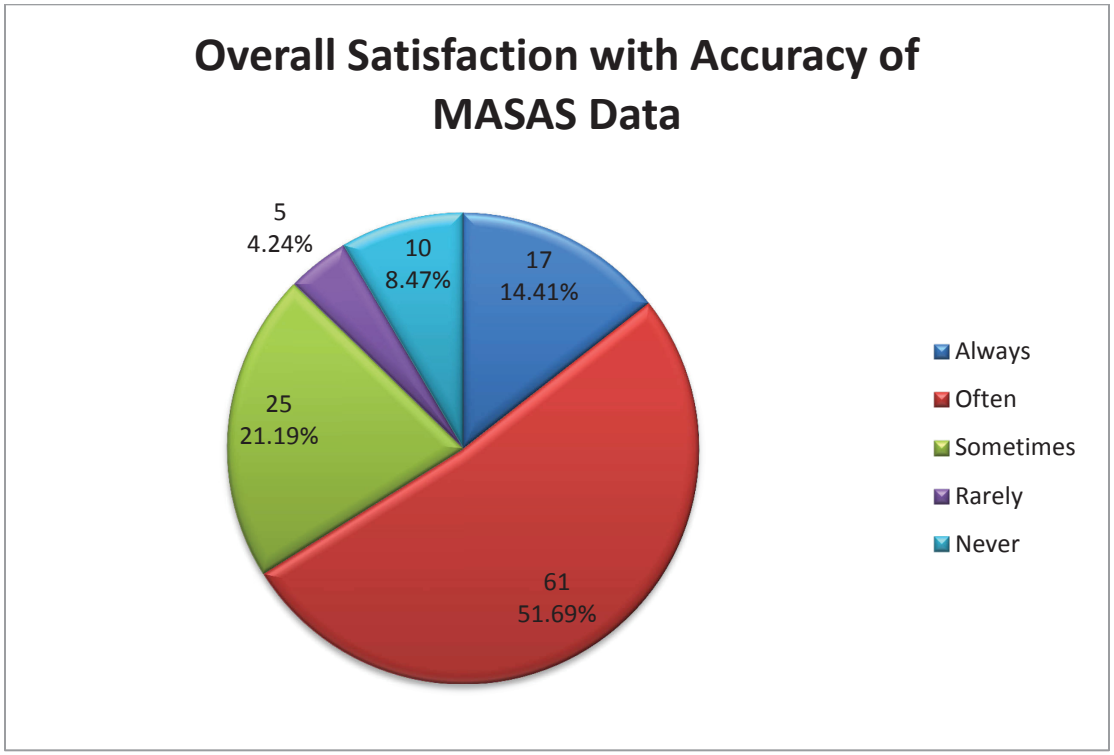

Figure 3-20:Overall Satisfaction with Accuracy of MASAS Data

3.3.7 Satisfaction with Accuracy Across Levels of Government

Further analysis of the responses (N=103) associated with all levels of government revealed the same pattern observed in the overall analysis. Most of the responses associated with federal (17.47%), provincial/territorial (13.59%) and municipal (18.44%) levels of government indicated that respondents are 'often' satisfied with the accuracy of the information that is displayed within the MASAS tool. In contrast, very few responses indicated that the respondents were dissatisfied with the information displayed within MASAS (Figure 3-21).

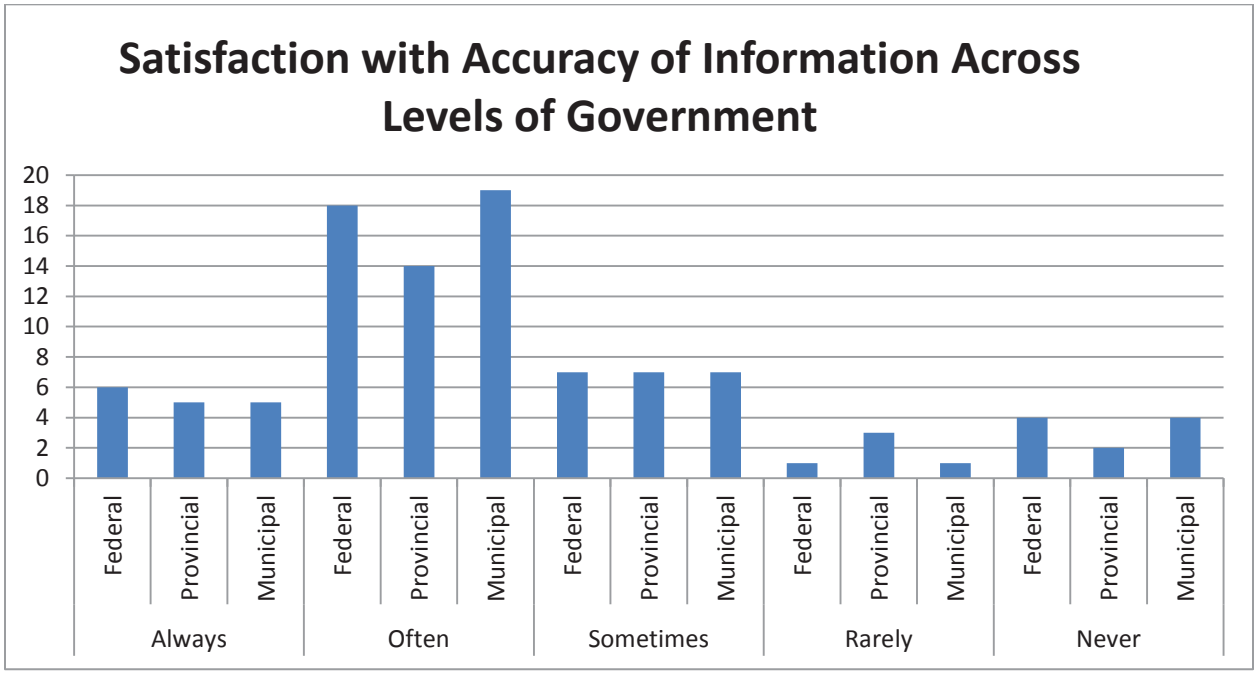

Figure 3-21: Satisfaction with Accuracy of Information Across Levels of Government

3.3.8 Overall Confirmation of MASAS Information

Overall, respondents (N=118) indicated that they tend to confirm the accuracy and currency of the information with another person prior to sharing the information within their own organization (Figure 3-22). A detailed analysis revealed that 64.4% of respondents ('always' (29.66%), 'often' (16.10%) or 'sometimes' (18.64%)) typically confirm the accuracy and currency of the information. In contrast, respondents indicated that they 'rarely' (15.25%) or 'never' (20.34%) confirm the information before it is shared within their own organization.

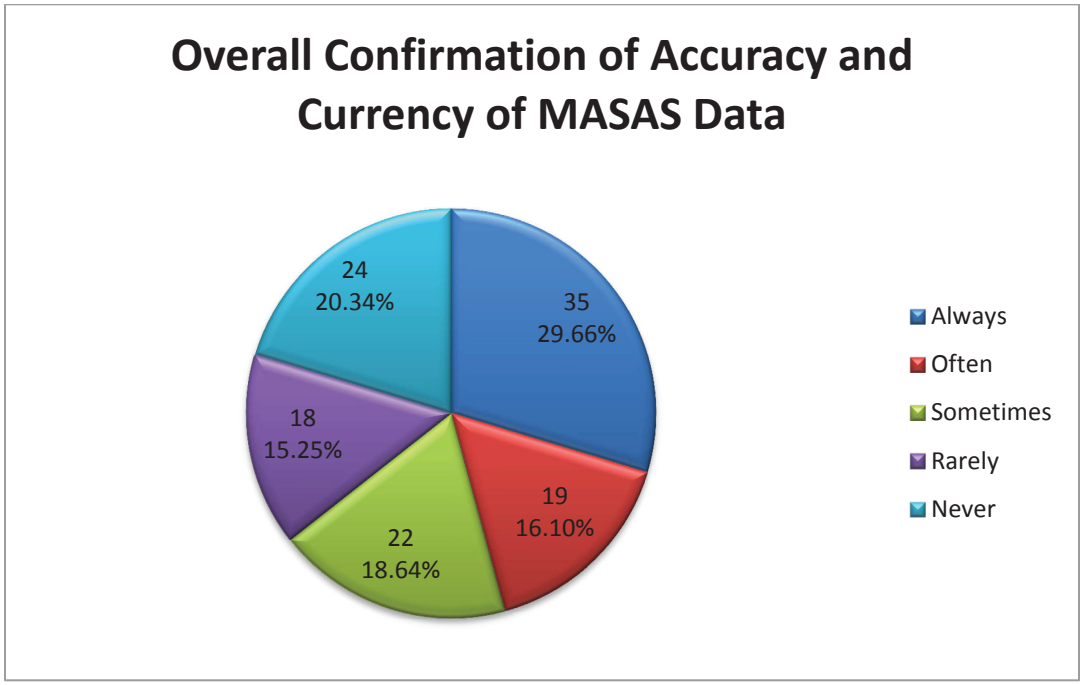

Figure 3-22:Overall Confirmation of Accuracy and Currency of MASAS Data

3.3.8.1 Confirmation of Accuracy and Currency Across Government Levels

Further analysis of these responses revealed that provincial/territorial (11.65%) and municipal (11.65%) level organizations 'always' confirm the accuracy and currency of the information prior to sharing it within their own organizations. Although many of the federal level organizations (7.77%) also indicated that they 'always' confirm the information prior to sharing it within their organization, most of the federal level responses indicated that there is 'no need to confirm the information' prior to sharing it within their organization (11.65%). The latter finding is expected to be the result of the federal government's mandate to monitor the progress that is made during emergency events in case they have to prepare a federal-level response. To a lesser extent the organizations at all government levels confirm the accuracy and currency of the information to varying degrees and it likely dependent upon the circumstances of the situation (Figure 3-23).

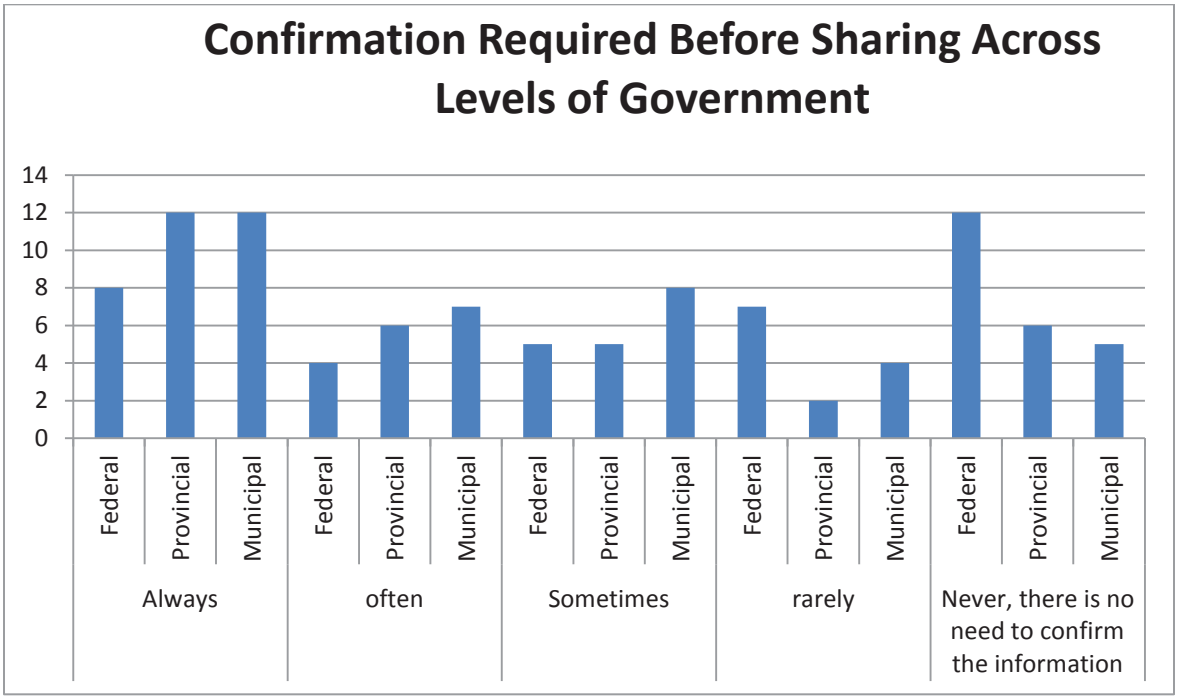

Figure 3-23: Confirmation Required Before Sharing Across Levels of Government

3.3.9 Expectations for Future Usage Levels for MASAS

Overall, the data analysis (N=113) indicated that 66.37% of respondents expect their organizations will increase MASAS usage within the 12-18 month timeframe. In contrast, 30.97% of respondents indicated that the use of MASAS within their organizations will remain the same during this time period. A very small subset of respondents (2.65%) expected the usage of MASAS to decrease (Figure 3-24).

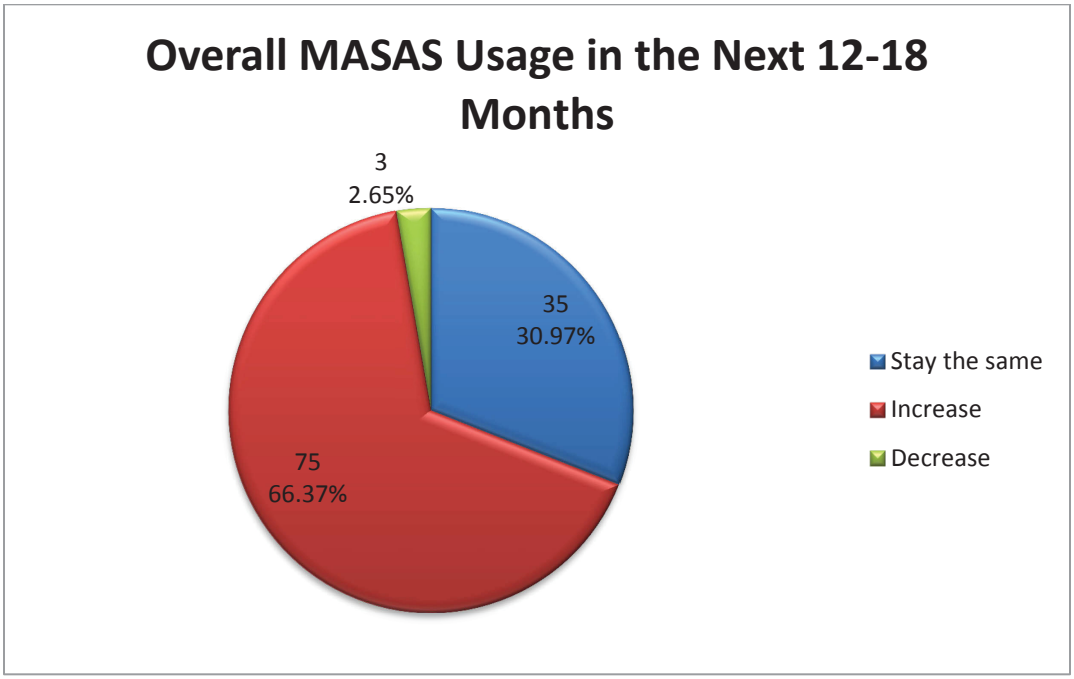

Figure 3-24:Overall MASAS Usage in the Next 12-18 Months

3.3.9.1 Expectations for Future Usage Across Levels of Government

Further analysis of these responses (N=98) revealed that most EM organizations at the municipal (29.59%) and federal (25.51%) level expected to increase their usage of MASAS within the next 12-18 months. Some of the provincial/territorial organizations (11.22%) also indicated that they would likely increase their usage of the MASAS capability however, most provincial EM organizations expected their usage of MASAS to stay the same (18.37%). None of the municipal organizations and very few federal and provincial/territorial organizations anticipated a decrease in the level of usage in the future (Figure 3-25).

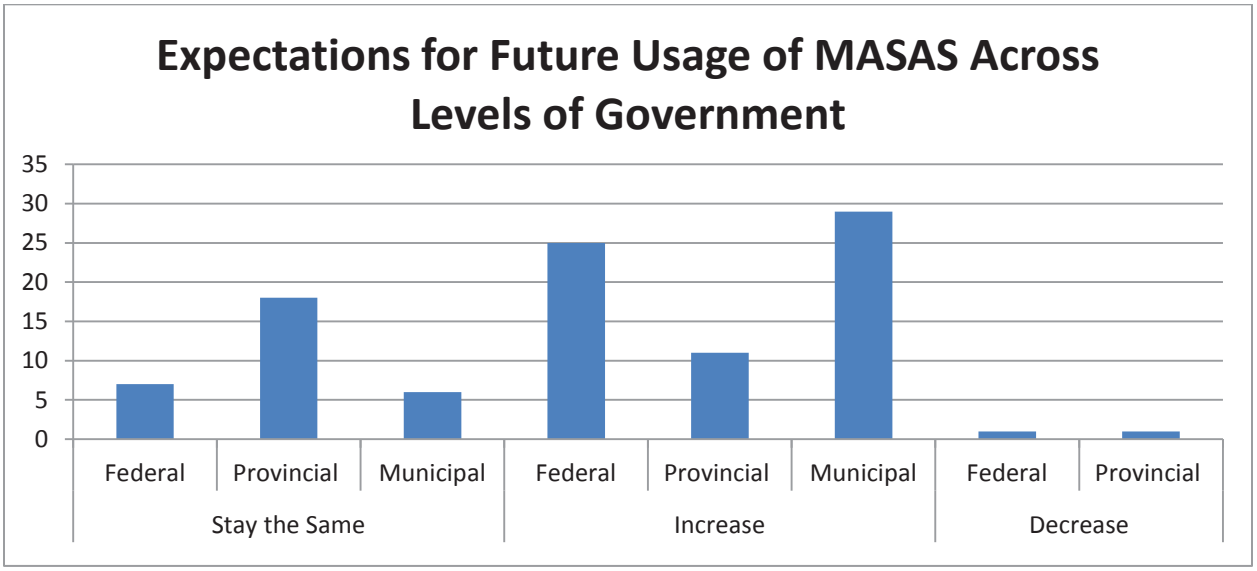

Figure 3-25: Expectations for Future Usage of MASAS Across Levels of Government

3.3.9.2 Qualitative Analysis for Expectations of Future Usage

Respondents provided input (N=84 comments) to explain how their organizations' usage of MASAS is expected to change in the future. A qualitative analysis of these comments (Figure 3-26) indicated that the following factors will increase the frequency with which MASAS is used by EM organizations:

- Capability Adoption (34.5%) – Organizations will use MASAS more frequency as more EM organizations become involved and contribute information;
- Training/Evaluation (27.38%) – Personnel need to learn how to use the system and how it can be integrated with the existing EM systems in their organizations;
- Technology Development (22.62%) – The current MASAS system should be augmented with updated and/or new features and access to additional types of information. The funding that exists for the next 1.5 years should prioritize and address the most critical development issues;
- Approval/Process Development (11.90%) – Acceptance of the MASAS capability is required from the executive level decision makers within the EM organizations before its use can be incorporated into the SOPs and processes; and
- Use of Other Tools (3.57%) – Existing tools that are within the EM organizations will continue to be used and therefore, the MASAS capability may be overshadowed by the current capability.

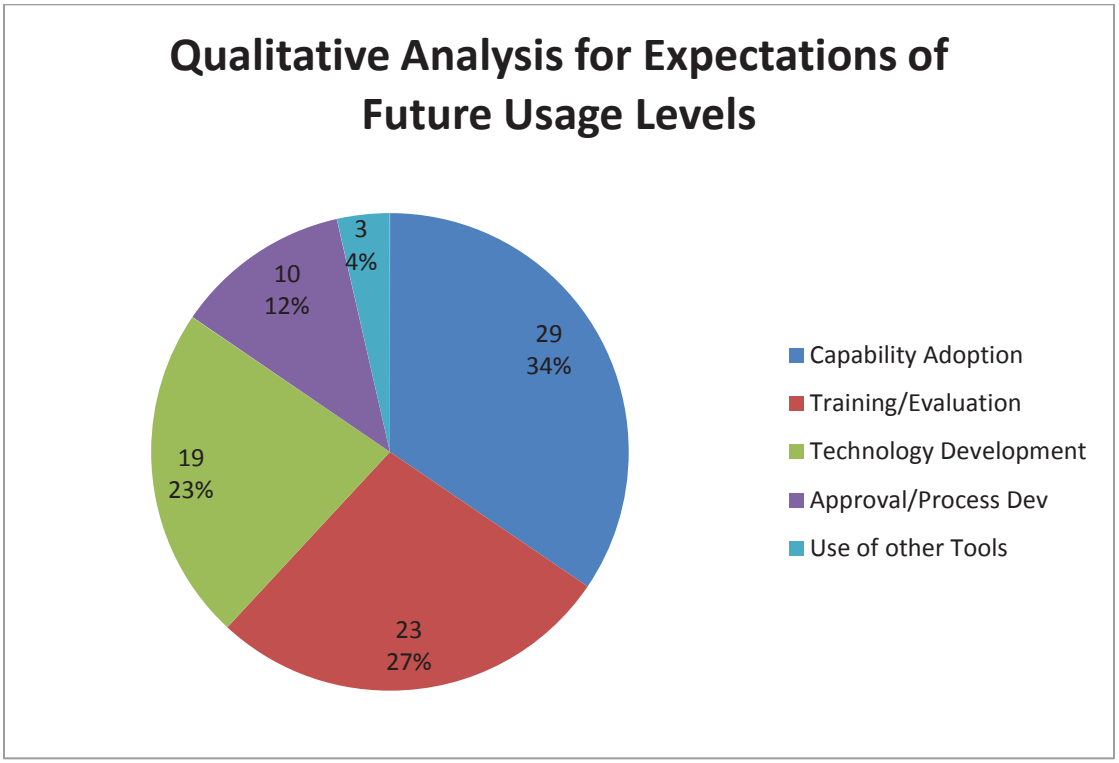

Figure 3-26: Qualitative Analysis for Expectations of Future Usage Levels

3.3.9.3 Qualitative Analysis for Suggestions to Make MASAS More Useful to Organizations

A subsequent qualitative analysis (N=62 comments) was performed on suggestions provided by respondents for making MASAS more useful to their organizations. The results of this analysis (Figure 3-27) indicated that the following factors will make MASAS more useful:

- Features and Functionality (59.67%) – Technological improvements to the MASAS system that will provide more useful information and enhance the 'ease of use' for the EM community;
- Training (20.97%) – Increasing the access to training through documentation and tutorials will lead to enhanced familiarity with the MASAS technology; and
- Adoption (19.36%) – Increasing the penetration of MASAS across the entire EM community and within each individual EM organization will increase the overall awareness of the tool, contributions to the situational awareness and value to the users.

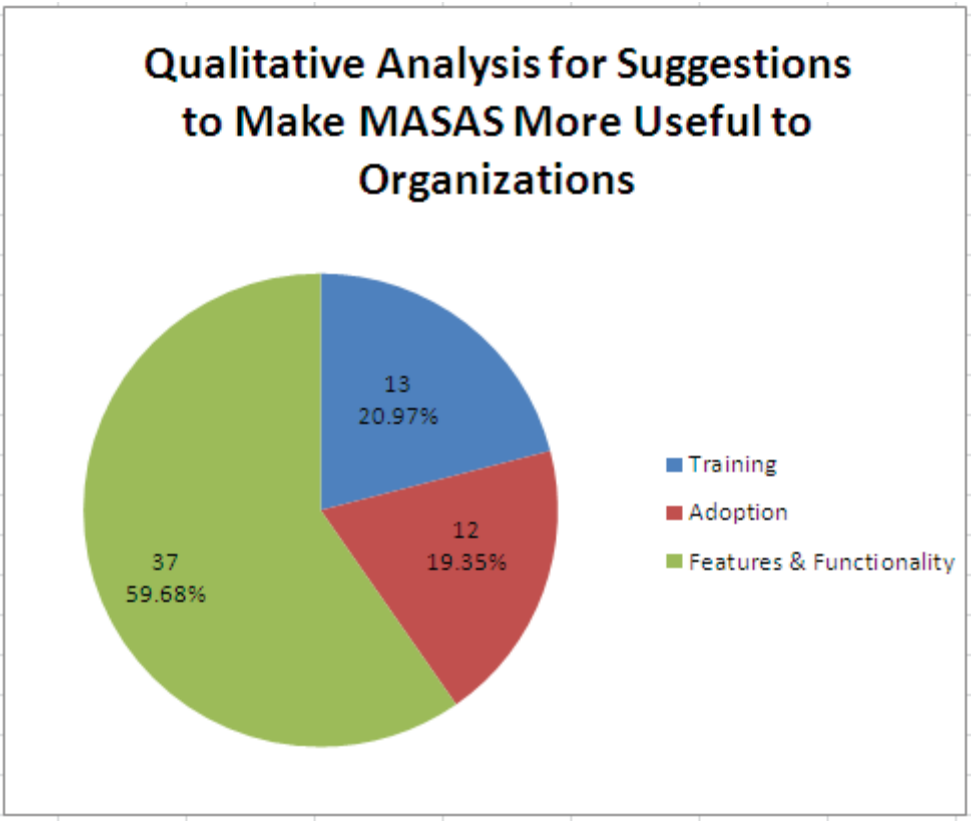

Figure 3-27:Qualitative Analysis for Suggestions to Make MASAS More Useful to Organizations

3.4 Membership and Governance

3.4.1 Transition the MASAS Service to a NFP Organization

An analysis of the data (N=113) indicated that 68.14% of respondents agreed that the MASAS service could be managed effectively by a NFP organization. In contrast, 31.86% of respondents indicated that they did not think the MASAS service could be effectively managed by an NFP organization (Figure 3-28). A NFP organization was defined as a corporation that uses profits to pursue the organization's objective and does not distribute the profits to the owners.

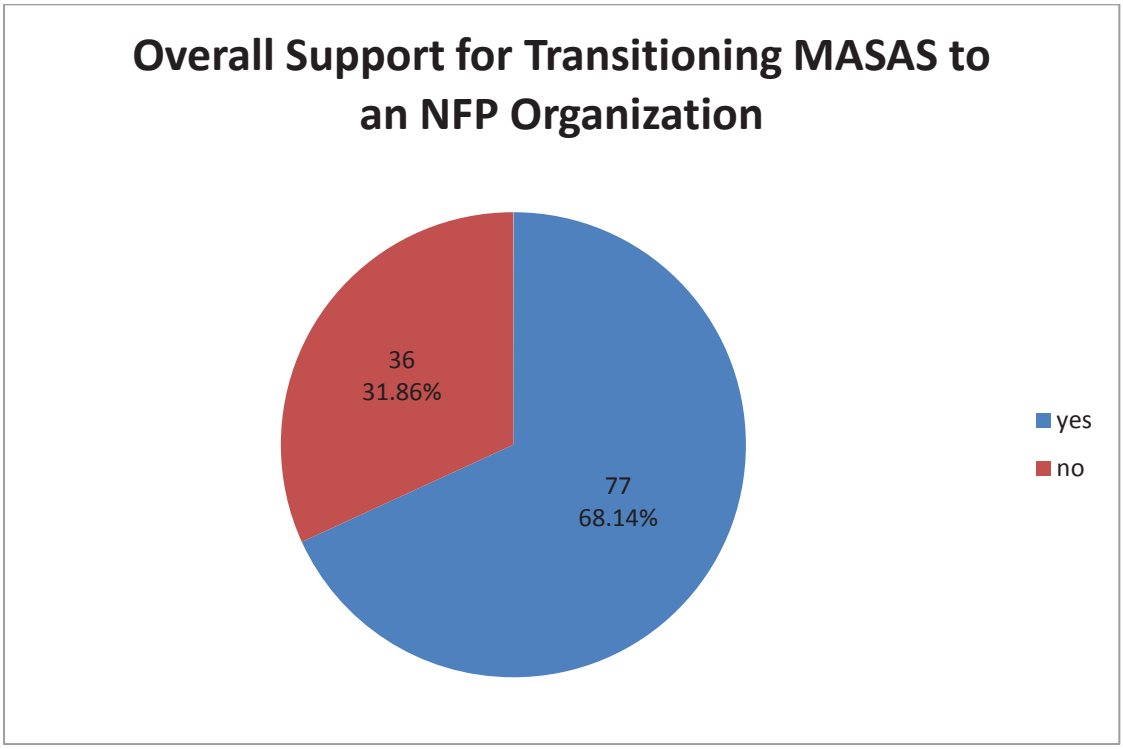

Figure 3-28:Overall Support for Transitioning MASAS to an NFP Organization

3.4.1.1 Support for MASAS Transition Across Government Levels

Further analysis of these responses (N=98) revealed similar patterns of response compared to the overall analysis (Figure 3-29). Higher levels of response that supported the transition to a NFP were observed for all three levels of government when compared to the levels of response that were not in favour of transitioning MASAS in this way.

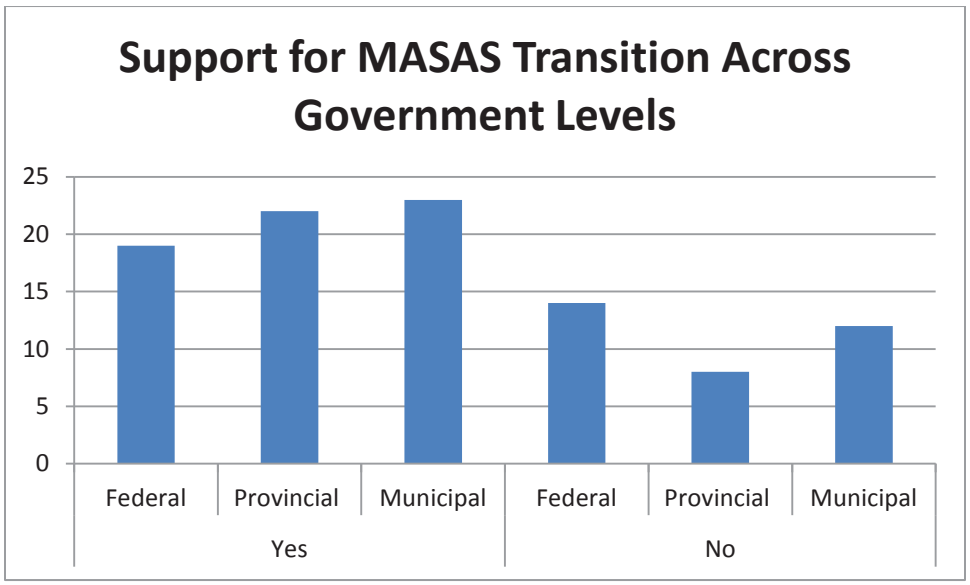

Figure 3-29: Support for MASAS Transition Across Government Levels

3.4.1.2 Qualitative Analysis of Responses that Disagree with Transition to NFP

Respondents who did not agree with this transition approach provided comments (N=36) to indicate why an NFP organization could not manage the MASAS service in an effective manner. A qualitative analysis was performed on these comments revealed the following factors:

- Security Requirements – There is a perception that an NFP could not manage the distribution and security of sensitive information

- Credibility Issues – The MASAS capability will lose the credibility that has been earned from the EM community. Further, there will be limited trust in the organization and it will be difficult to provide the appropriate level of governance for the EM community;

- Expense – The costs are not justifiable for the value that will be received. It is likely that the business case to pay fees will have to be made each year. If EM organizations are not able to contribute to the information that is displayed within MASAS, because they do not have a paid membership, the overall value of the capability will begin to degrade; and

- Widespread Adoption of Service – There is a concern that transitioning the MASAS capability to an NFP organization will lead to reduced participation of the EM community. This overall reduction will discourage the members from using the capability as a viable source of information.

3.4.2 Responsibility for Governing the MASAS

Respondents (N=110) provided a total number of 311 responses from a check list and provided other suggestions, to indicate which organizations should be involved in governing MASAS. Multiple responses were permitted. Overall, 24.12% of the total number of responses supported Senior Officials Responsible for Emergency Management (SOREM) being involved in the governance of MASAS followed by provincial/territorial government EM organizations (19.61%) and federal departments (17.68%). Respondents also indicated that municipal EM organizations (14.79%) and Chiefs (police, fire, paramedic) organizations (12.22%) should have a role in governance. To a lesser extent, the responses indicated that Non-Governmental EM organizations (8.04%) or ‘other’ (3.54%) organizations were candidates for also playing a role in governing MASAS (Figure 3-30).

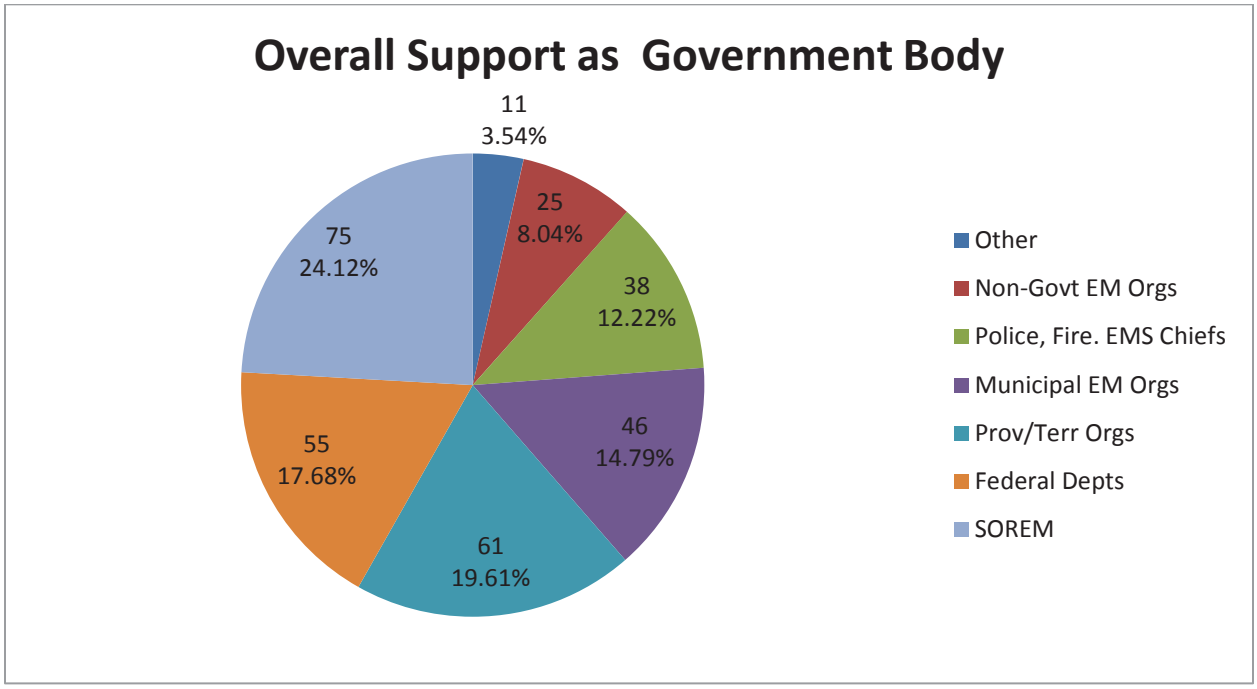

Figure 3-30: Overall Support as a Governing Body

3.4.2.1 Support for Governing Body Across Levels of Government

Further analysis of the responses (N=288) associated with levels of government revealed similar patterns of response compared to the overall analysis. Responses from all three levels of government supported a role for SOREM, federal departments and provincial/territorial organizations in governing MASAS. However, differences between the responses provided by the levels of government were observed. More responses associated with the municipal level of government supported a role for both municipal organizations and Chiefs organizations when compared to the other two levels of government. In addition, more responses provided by the federal and provincial/territorial levels of government were in favour of a role for provincial/territorial organizations than the responses that were in favour of SOREM; the opposite pattern was observed with the responses associated with the municipal level of government. To a much lesser extent, all levels of government indicated that a role for NGOs may exist (Figure 3-31).

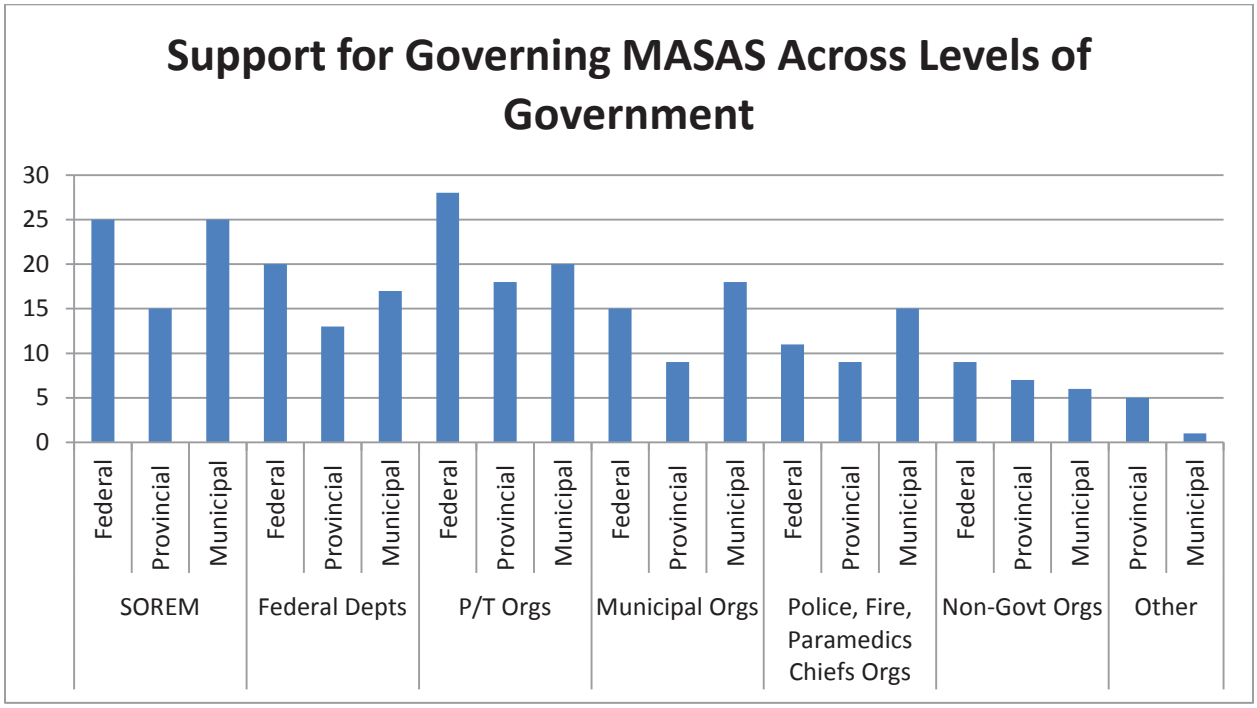

Figure 3-31: Support for Governing MASAS Across Levels of Government

3.4.3 Membership for CI Owners

The results of the analysis (N=112) indicated that 92.86% of respondents agreed that CI owners should be permitted to become members of the MASAS organization and view 'non-classified' information displayed in MASAS. A very small subset of respondents (7.14%) did not support having CI owners as MASAS members (Figure 3-32).

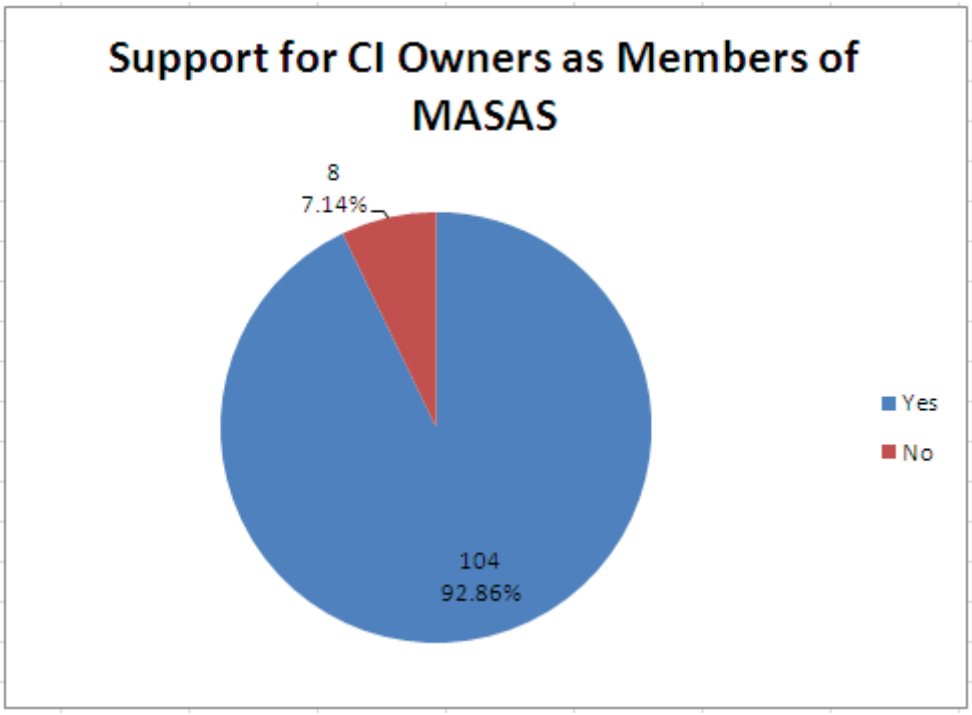

Figure 3-32: Support for CI Owners as Members of MASAS

3.4.3.1 Support for CI Owners Across Levels of Government

Further analysis (N=97) of the responses associated with levels of government was performed. This analysis revealed that similar numbers of responses from all three levels of government supported including CI owners as MASAS members (Figure 3-33).

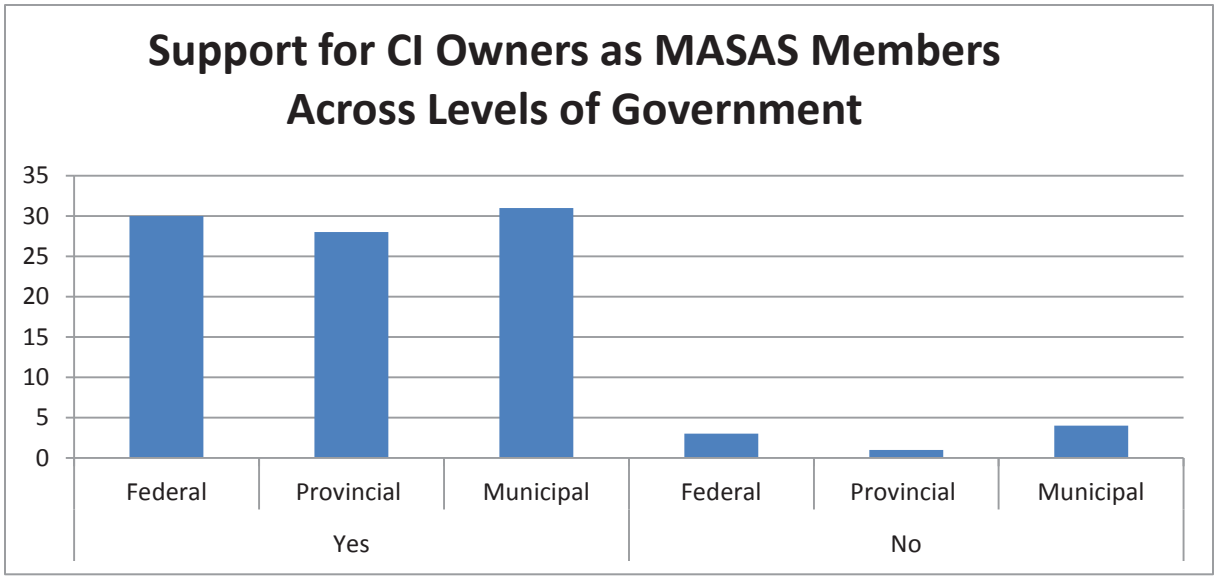

Figure 3-33: Support for CI Owners as MASAS Members Across Levels of Government

3.4.3.2 Qualitative Analysis for Support for CI Owners as MASAS Members

A qualitative analysis was performed on the respondents' comments (N=98) who favoured the inclusion of CI owners. The results of this analysis indicated that their inclusion would allow for a holistic approach towards emergency management. Further, their inclusion would allow the public and private sectors to share capabilities and information during the planning and response to emergencies (Figure 3-34).

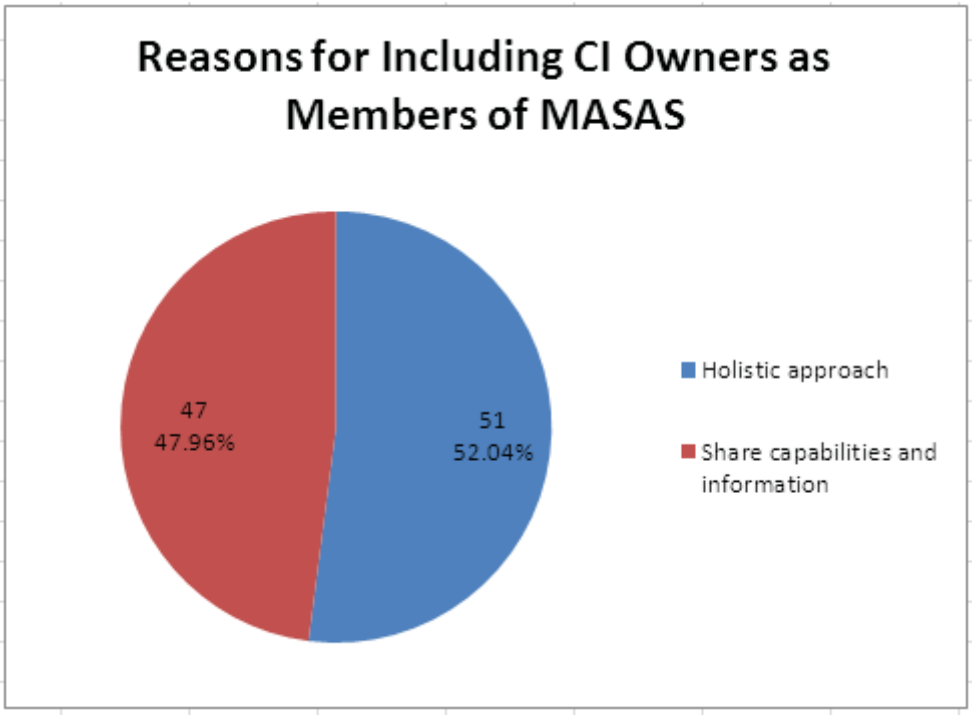

Figure 3-34: Reasons for Including CI Owners as MASAS Members

3.4.3.3 Qualitative Analysis for Not Supporting CI Owners as MASAS Members

A qualitative analysis was performed on the respondents' comments (N=8) who did not favour the inclusion of CI owners in MASAS membership was performed. A qualitative analysis of the comments revealed that the primary concern was related to the security of information. In general, the concerns were associated with the control and interpretation of the information that is displayed within MASAS.

3.4.4 Membership for U.S. Border States

The results of the analysis (N=112) indicated that 96.43% of respondents agreed that U.S. border states should be permitted to become members with the same privileges.A very small subset of respondents (3.57%) did not support having U.S. border states as MASAS members (Figure 3-35).

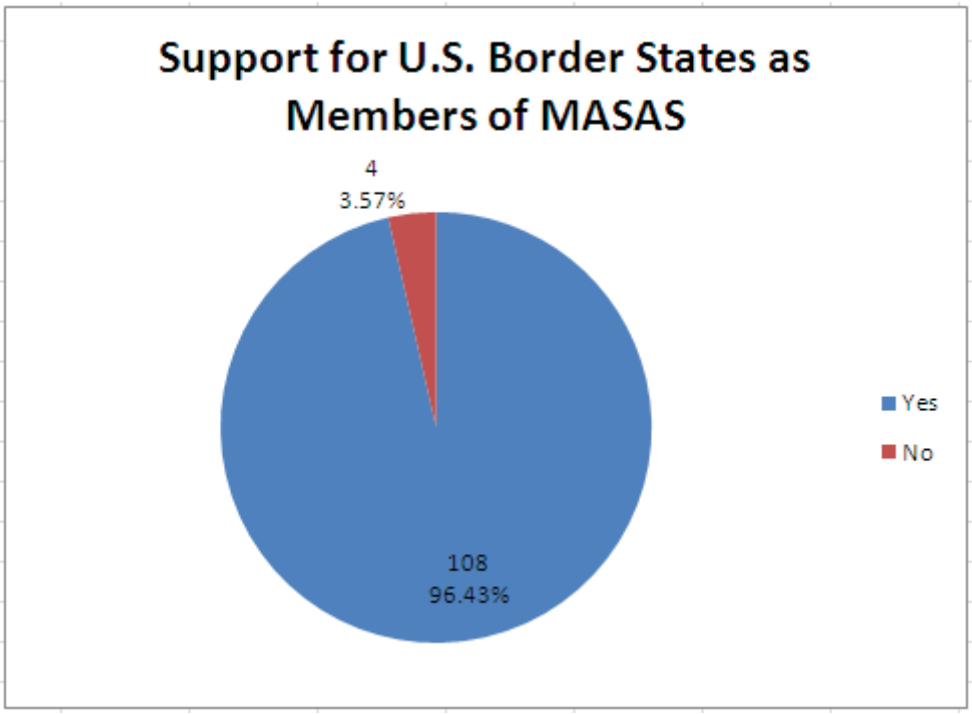

Figure 3-35: Support for U.S. Border States as Members of MASAS

3.4.4.1 Support for U.S. Border States Across Levels of Government

Further analysis (N=97) of the responses associated with levels of government was performed. This analysis revealed that similar numbers of responses from all three levels of government supported including U.S. border states as MASAS members (Figure 3-36).

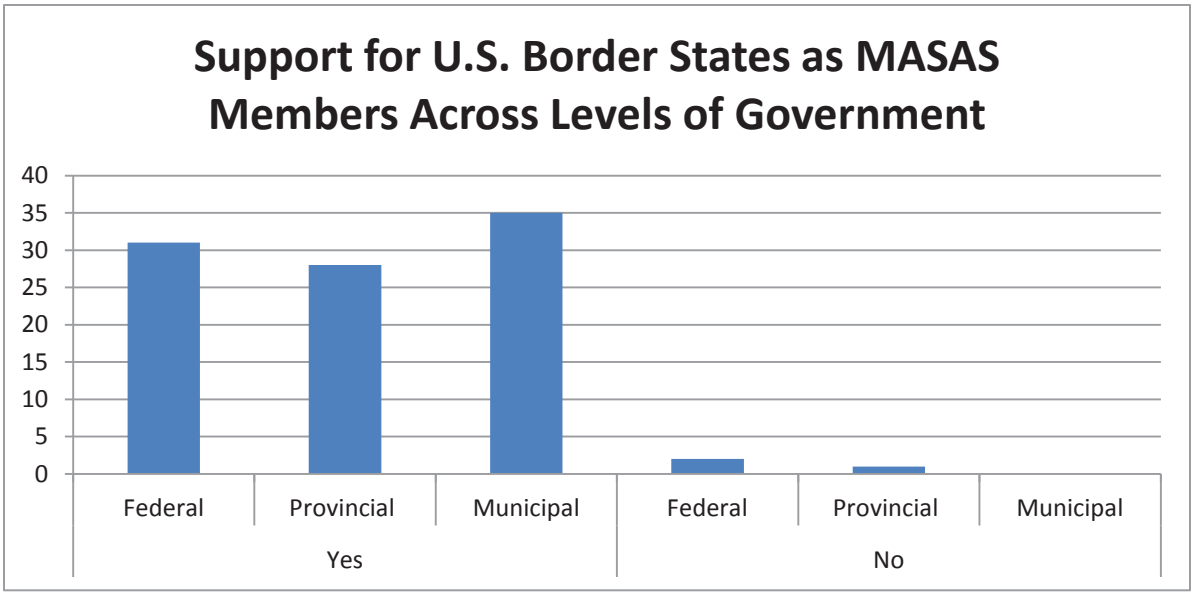

Figure 3-36: Support for U.S. Border States as MASAS Members Across Levels of Government

3.4.4.2 Qualitative Analysis for Support for U.S. Border States as MASAS Members

A qualitative analysis was performed on the respondents' comments (N=102) who favoured the inclusion of U.S. border states. The results of this analysis indicated that their inclusion would lead to increased situational awareness(SA) and risk analysis (RA) (69.61%) and would provide a better opportunity to co-ordinate the responses (30.39%)which are needed to emergency incidents that affect both sides of the national border (Figure 3-37).

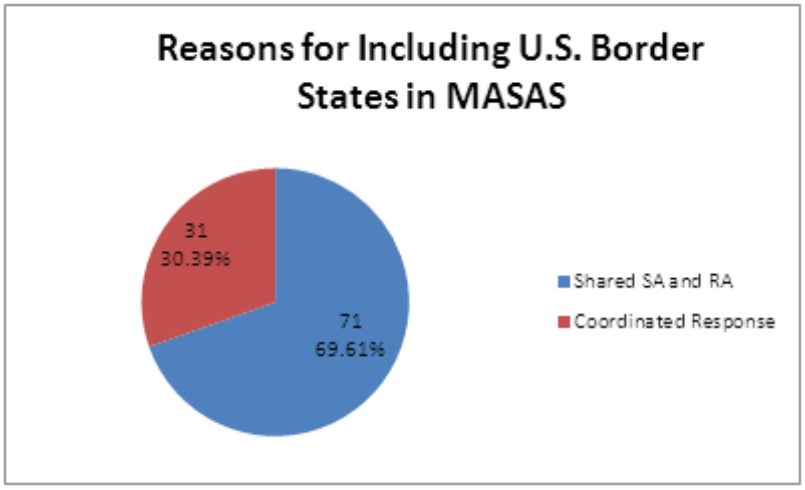

Figure 3-37: Reasons for Including U.S. Border States in MASAS

3.4.4.3 Qualitative Analysis for Not Supporting U.S. Border States as MASAS Members

A qualitative analysis was performed on the respondents' comments (N=3) who did not favour the inclusion of U.S. border states in MASAS membership was performed. A qualitative analysis of the comments revealed that the primary concerns were related to controlling the information that is shared within MASAS and ensuring that formal agreements can be established that define the requirements for assistance between government levels.

3.5 Payment

3.5.1 Overall Support for the Payment of Fees

The results of the analysis (N=111) indicated that 35.14% of respondents supported the position that member organizations should pay fees to use the MASAS service. In contrast, 64.86% of respondents did not support the payment of fees by member organizations (Figure 3-38).

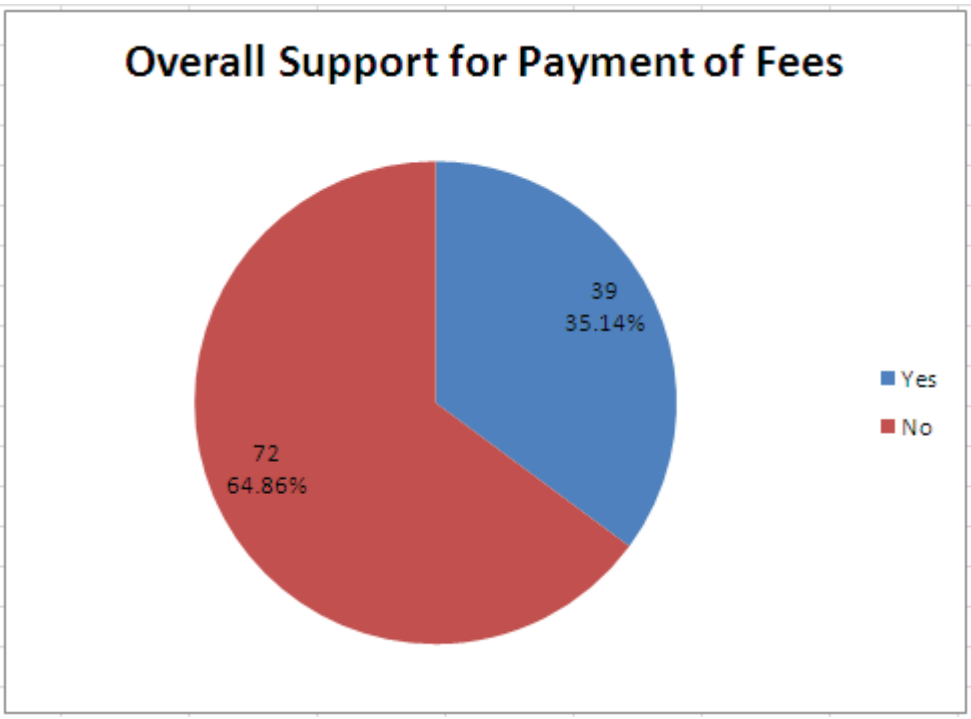

Figure 3-38:Overall Support for the Payment of Fees

3.5.1.1 Support for Payment Across Government Levels

Further analysis investigated the subset of responses(N=96) that were provided by participants from federal, provincial/territorial and municipal levels of government (Figure 3-39). This analysis revealed that most of the responses that supported the payment of fees in return for access to the MASAS capability were associated with the municipal level of government (26.04%). By comparison, fewer responses from the federal (12.5%) and provincial/territorial (8.33%) levels which were in favour of paying fees. In fact, the responses from the federal (21.88%) and provincial/territorial (20.83%) levels of government indicated that they clearly did not support the payment of fees.

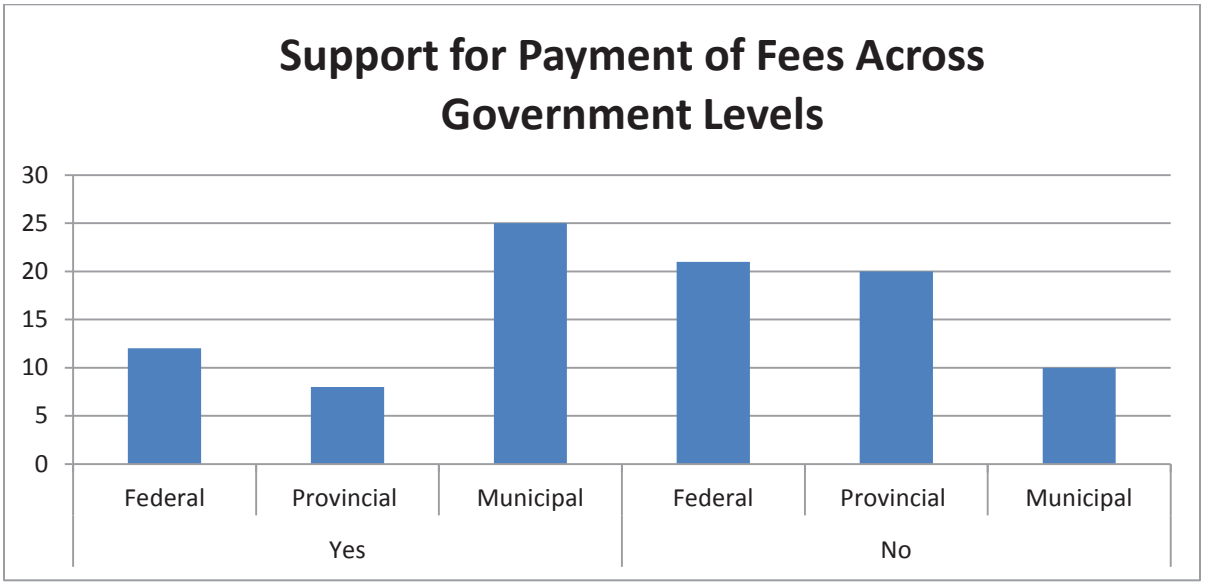

Figure 3-39: Support for Payment of Fees Across Government Levels

3.5.1.2 Qualitative Analysis for Reasons Members Should Not Pay Fees

A qualitative analysis was performed on the comments provided by respondents (N=64 comments) who did not favour paying fees for MASAS service. The results of this analysis (Figure 3-40) identified the following four themes:

- Fees are obstructive (37.5%) – The application of fees will make it harder to become involved in benefitting from accessing the MASAS capability. Fees will be difficult for small EM organizations to budget for this capability. In addition, it will be difficult for municipalities that are already facing serious issues associated with the high cost of emergency services;

- Community-based and publicly funded (29.69%) – The MASAS tool that underlies the MASAS capability is populated with information that is contributed by the members. This information is primarily contributes to the overall situational awareness for an on-going emergency incident. This augmented level of situational awareness is essential to properly perform EM processes. Enhanced situational awareness is expected to contribute to response planning and execution leading to savings for both time and money. This capability is viewed as a community effort that should be accessible to all EM organizations regardless of whether they have money to pay for it. The adoption of the capability will be higher if it remains free;

- Deterrent to join/use MASAS (29.69%) – Further, the application of fees will detract from the interest in the capability. The MASAS capability must be supported by the information that is entered by the EM community however, the organizations will be unlikely to use the capability if it provides insufficient value during the management of an on-going emergency event; and

- Additional value is required to justify payment (3.13%) – There is a perception that the MASAS capability provides a limited value to the EM community. This will make it difficult to justify investing in the cost of accessing the capability.

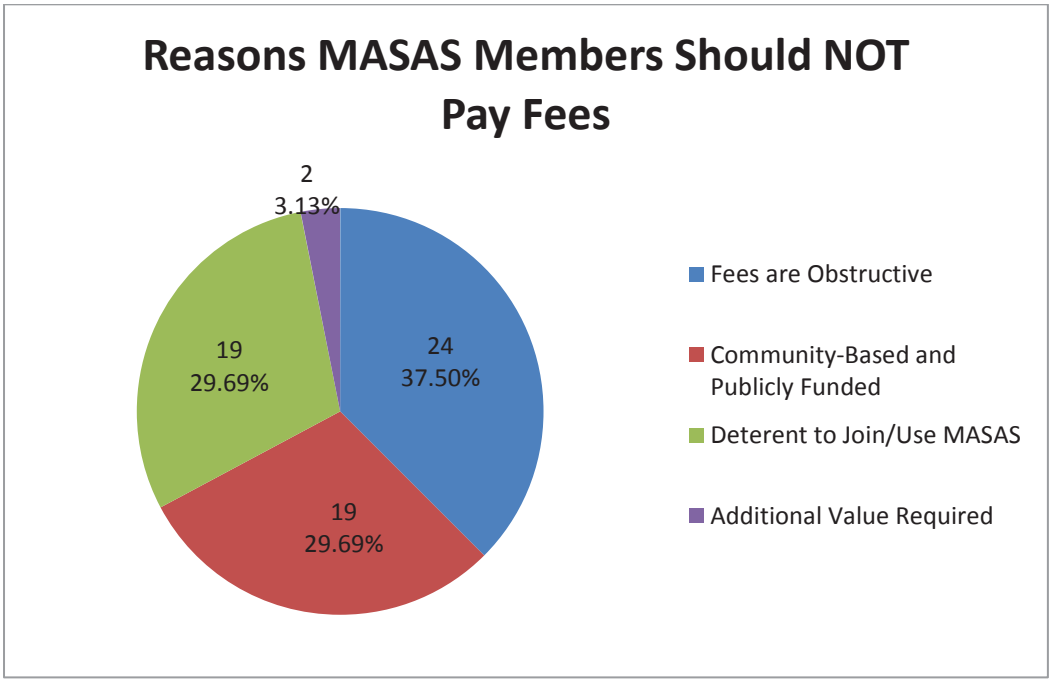

Figure 3-40:Reasons MASAS Members Should NOT Pay Fees

3.5.2 Overall Financial Decision Making

The data analysis (N=110) revealed that 45.45% of respondents were responsible for making investment or purchase decisions for their organizations. In contrast, 54.55%of respondents were not responsible for make investment or purchase decisions for their organizations (Figure 3-41).

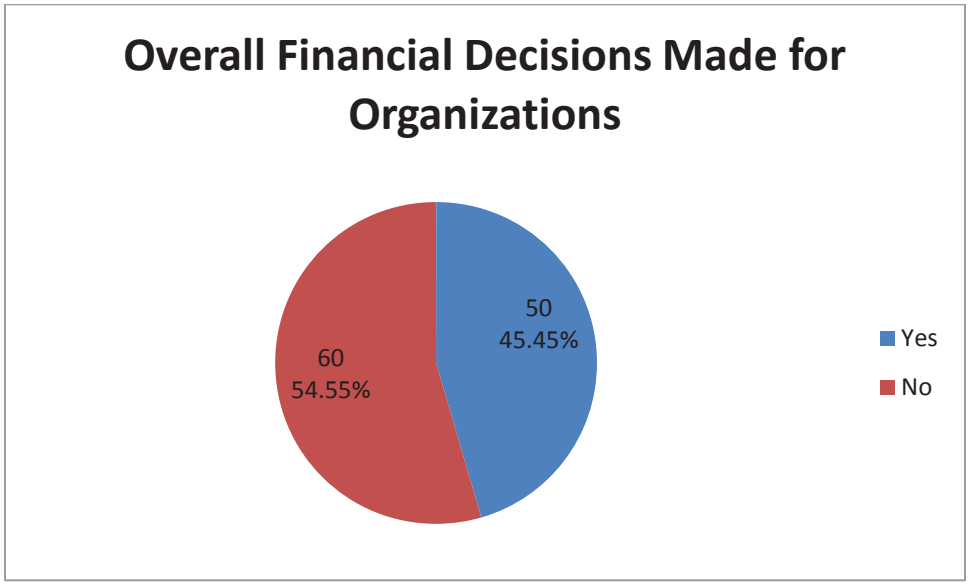

Figure 3-41:Overall Financial Decision Made for Organizations

3.5.2.1 Financial Decision Making Across Levels of Government

Further analysis investigated the subset of responses (N=86) that were provided by participants from federal, provincial/territorial and municipal levels of government (Figure 3-42). The results showed that 39.53% of respondents were responsible for making financial decisions at their organizations whereas, 60.46% of respondents did not have this responsibility. Most federal level respondents did not have responsibility for making financial decisions (29.07%).

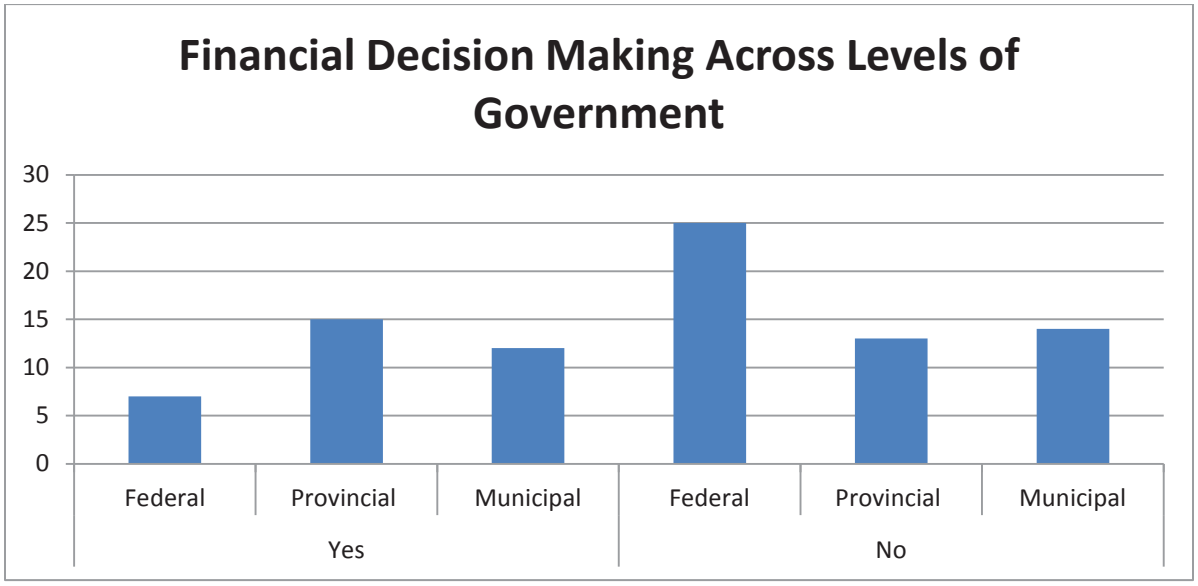

Figure 3-42: Financial Decision Making Across Levels of Government

3.5.3 Overall Willingness to Pay for MASAS Service

Respondents who were responsible for investment and purchase decisions (N=50) thought that their organizations would be *unwilling* to pay for the MASAS service (38%). Only 22% of these respondents thought their organizations would be willing to pay fees for the MASAS service. A large percentage of respondents (20%) did not know whether paying fees for this service would be possible (Figure 3-43).

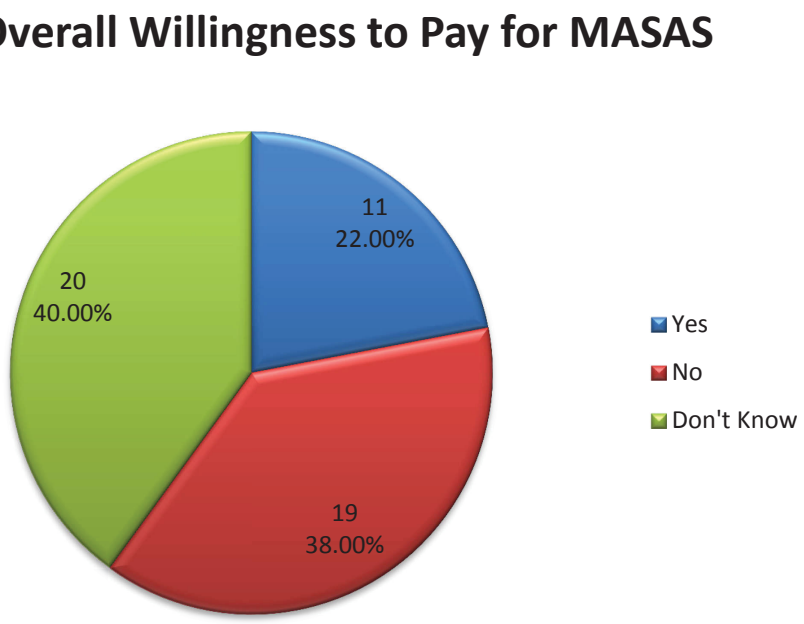

Figure 3-43:Overall Willingness to Pay for MASAS

3.5.3.1 Willingness to Pay Across Levels of Government

Further analysis investigated the subset of responses (N=43) that were provided by participants from federal, provincial/territorial and municipal levels of government (Figure 3-44). This analysis revealed that most government respondents (41.86%) did not know whether their organizations would be willing to pay for access to the MASAS capability. Similarly, 37.21% indicated that their organizations would not be willing to pay for access to the capability. A small group of respondents indicated that their organizations would be willing to pay for access to this capability (20.93%). It is important to note that the municipal level respondents were associated with the highest percentage of uncertainty (23.26%) and unwillingness to pay (16.28%) compared to the other levels of government.

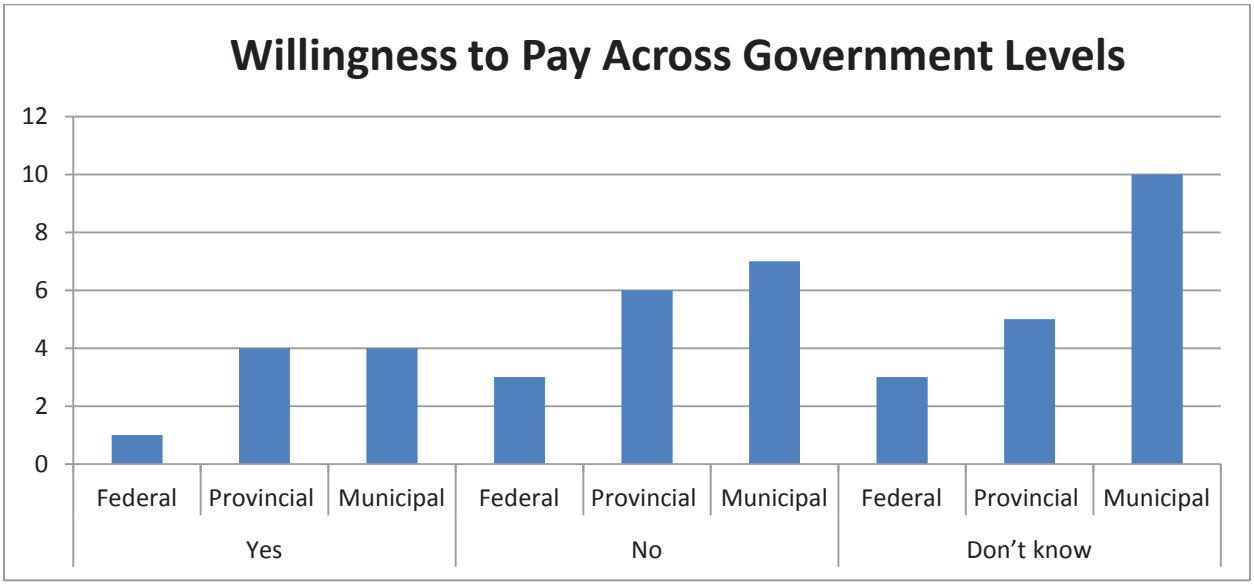

Figure 3-44: Willingness to Pay Across Government Levels

3.5.4 Overall Likelihood to Recommend Payment for MASAS Service

The data analysis (N=99) was performed to understand whether respondents who did who did not identify themselves as investment or purchase decision makers for their organizations would be likely to recommend paying for MASAS. The analysis revealed that 59.60% of respondents would NOT recommend paying for the MASAS service. In contrast, 40.40% of respondents indicated that they would recommend paying for the MASAS service (Figure 3-45).

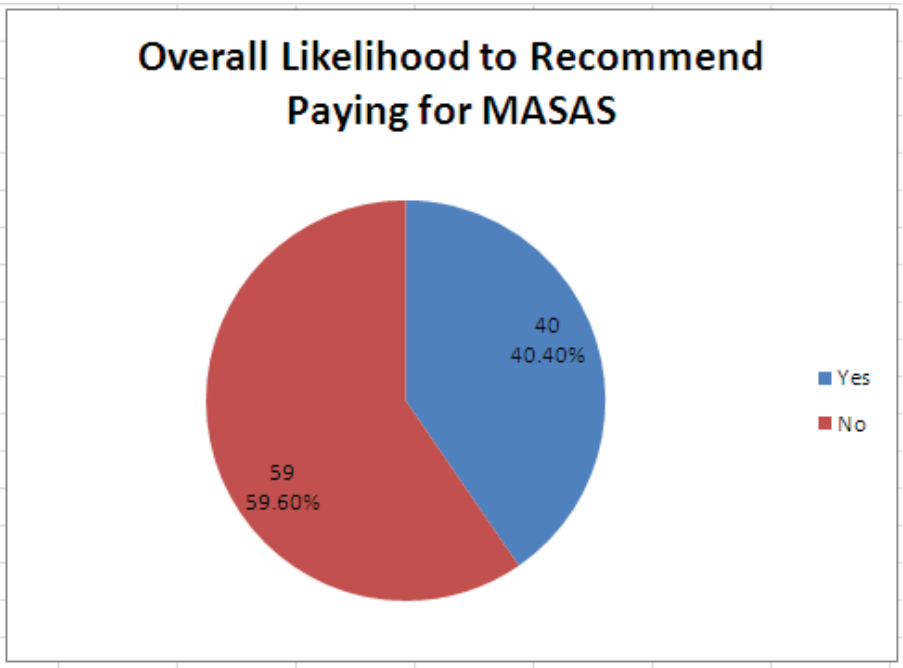

Figure 3-45:Overall Likelihood to Recommend Paying for Access to MASAS

3.5.4.1 Likelihood to Recommend Paying for Access to MASAS According to Levels of Government

Further analysis investigated the subset of responses (N=86) that were provided by participants from federal, provincial/territorial and municipal levels of government (Figure 3-46) who did not identify themselves as investment or purchase decision makers for their organizations. This analysis revealed that most government respondents (59.30%) would not recommend paying for access to the MASAS capability to the decision makers in their organizations. The responses associated with the federal (22.09%) were slightly elevated in comparison to the provincial/territorial (18.60%) and municipal (18.60%) levels. In contrast, more responses associated with the municipal level (17.44%) indicated that they would recommend paying for access to the MASAS capability in comparison to the federal (13.95%) and provincial/territorial (9.30%) levels.

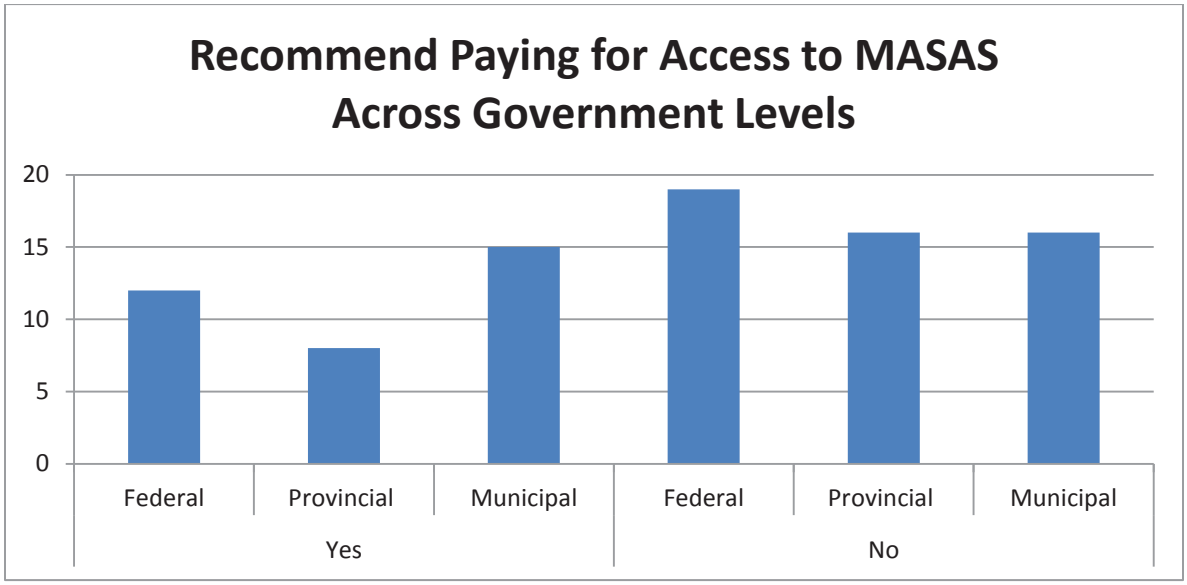

Figure 3-46: Recommend Paying for Access to MASAS Across Government Levels

A detailed analysis of the respondents' comments (N=47 comments) identified the following reasons for not recommending the payment of fees (Figure 3-47):

- Limited value would be provided for the fee (34.04%) – The MASAS service is not considered to be a 'must have' capability. The information provided by MASAS can be obtained through social media, existing applications and services without incurring additional charges. Some organizations do not currently use MASAS on a frequent basis because it does not augment their existing information gathering processes and systems. Therefore, the addition of fees would discourage continued or increased use of the MASAS service;

- Participation by all EM organizations is needed (10.64%) – The value of the information that is available within MASAS is entirely dependent upon the willingness of EM organizations entering current and accurate information. The active participation of all EM organizations is needed in order to ensure that an adequate level of relevant information is available to the EM community. If organizations are required to pay for MASAS service it is anticipated that fewer organizations will

contribute information which will, in turn, reduce the value of the information. Consensus by the EM community to use a particular standard for information exchange (e.g., Open Geospatial Consortium (OGC) standards or Organization for the Advancement of Structured Information Standards (OASIS) standards) could maximize the participation and the value of the information that is available for viewing through the service;

- Expense incurred to access MASAS (31.91%) – Organizations are currently challenged with finding ways to reduce expenses and will have difficulty directing funds to pay for the MASAS service. The decision to pay for the MASAS service is likely to be reviewed within the budgetary cycles and therefore, justifications will need to be made more than once and potentially each year, to maintain the service. Further, much of the information can be gathered through alternate systems and methods making it difficult for many EM organizations to build a business case supporting MASAS as a cost-effective option. Consequently, many organizations will not participate in the MASAS service which will lead to a degradation of the value that is associated with the information displayed within the MASAS system; and

- MASAS should be publicly funded (23.40%) – The capability delivered to the EM community through the MASAS service is viewed as an initiative that should be publicly funded. The federal government is responsible for the protection of CI and was identified as having the appropriate level of authority to govern and support this national-level capability by sanctioning the use of the MASAS service by all EM organizations. Finally, it was expressed that EM organizations should not have to pay to share information during an emergency.

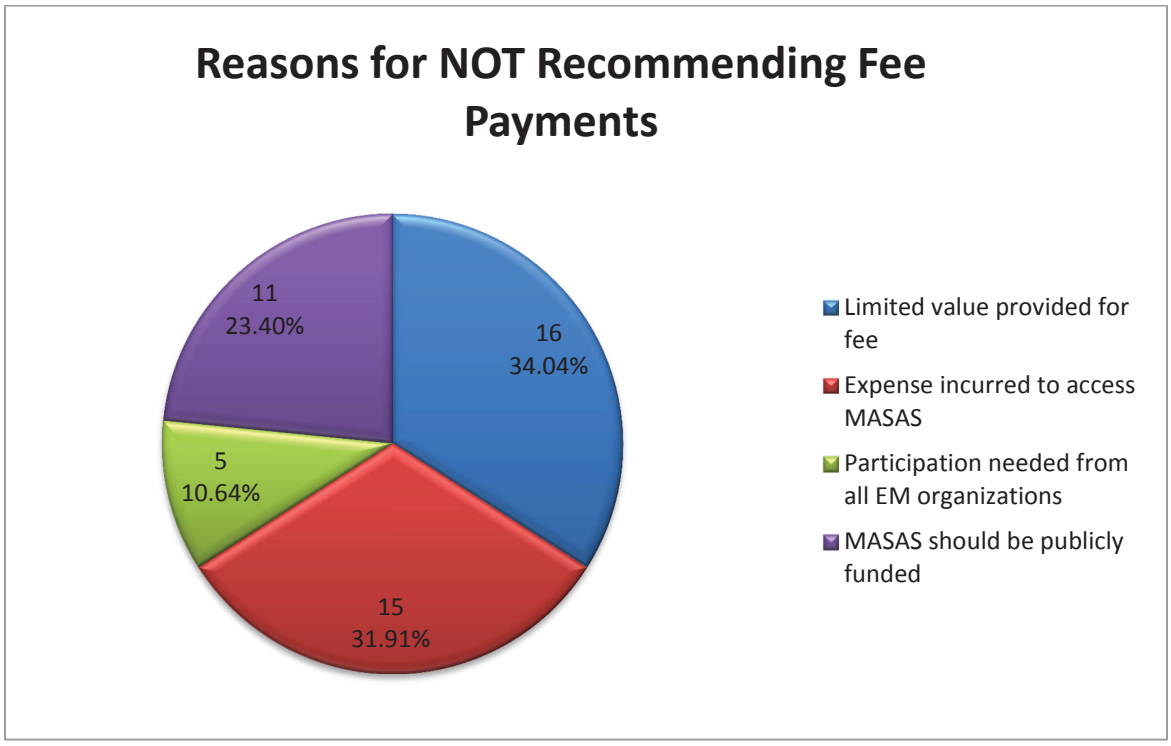

Figure 3-47: Reasons for NOT Recommending Fee Payments

3.5.5 Overall Expectations for Fee Payments

The subset of respondents (N=51) who indicated that they would recommend paying for the MASAS service also indicated their expectations for the payment amounts. An analysis indicated that 52.94% expected to pay 'less than $500 per year' followed by 19.61% who expected to pay '$501-$999 per year'. In addition, 17.65% of respondents also provided 'other' responses which generally indicated that the payment of fees was not a viable option either because the organizations had limited funds or because the value of the capability was premature (Figure 3-48).

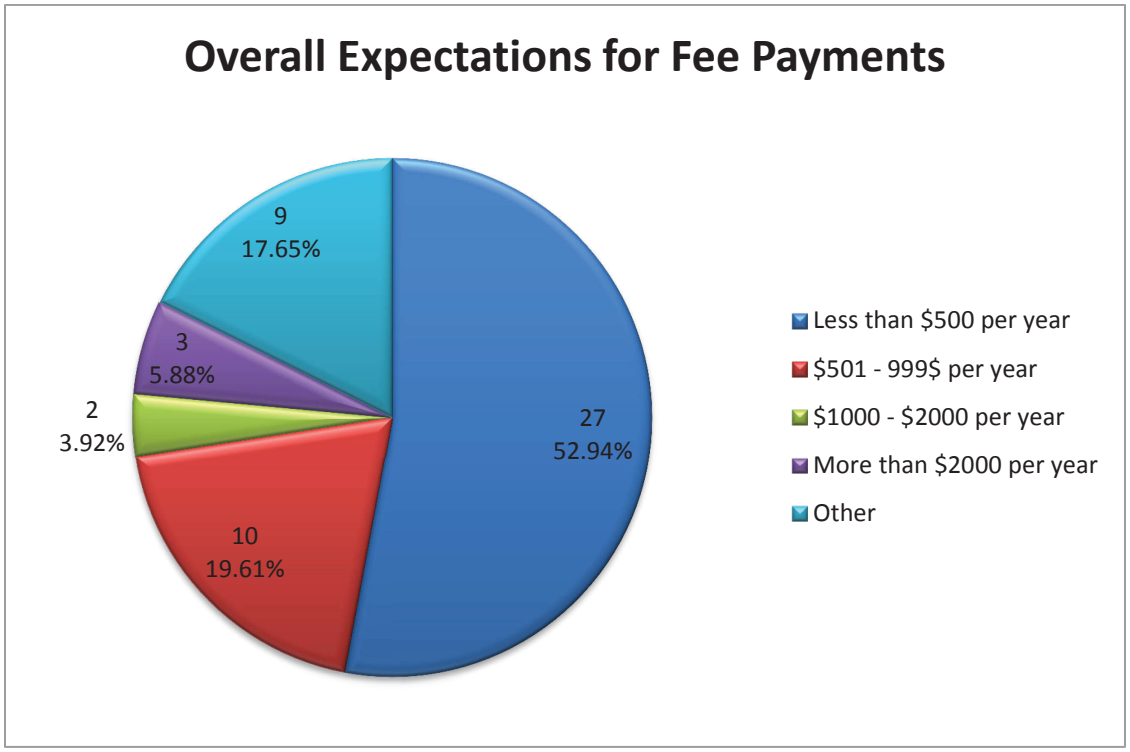

Figure 3-48: Overall Expectations for Fee Payments

3.5.5.1 Expectations for Fee Payments Across Levels of Government

Further analysis investigated the subset of responses (N=44) regarding expectations for fee payments that were provided by participants from federal, provincial/territorial and municipal levels of government (Figure 3-49). The results indicated that responses from all government levels (52.27%) indicated that fee payments should be 'less than 500 per year' and to a lesser extent '$501-$999 per year' (20.45%). Most of the municipal level respondents indicated that they would expect to pay 'less than $500 per year' (27.27%).

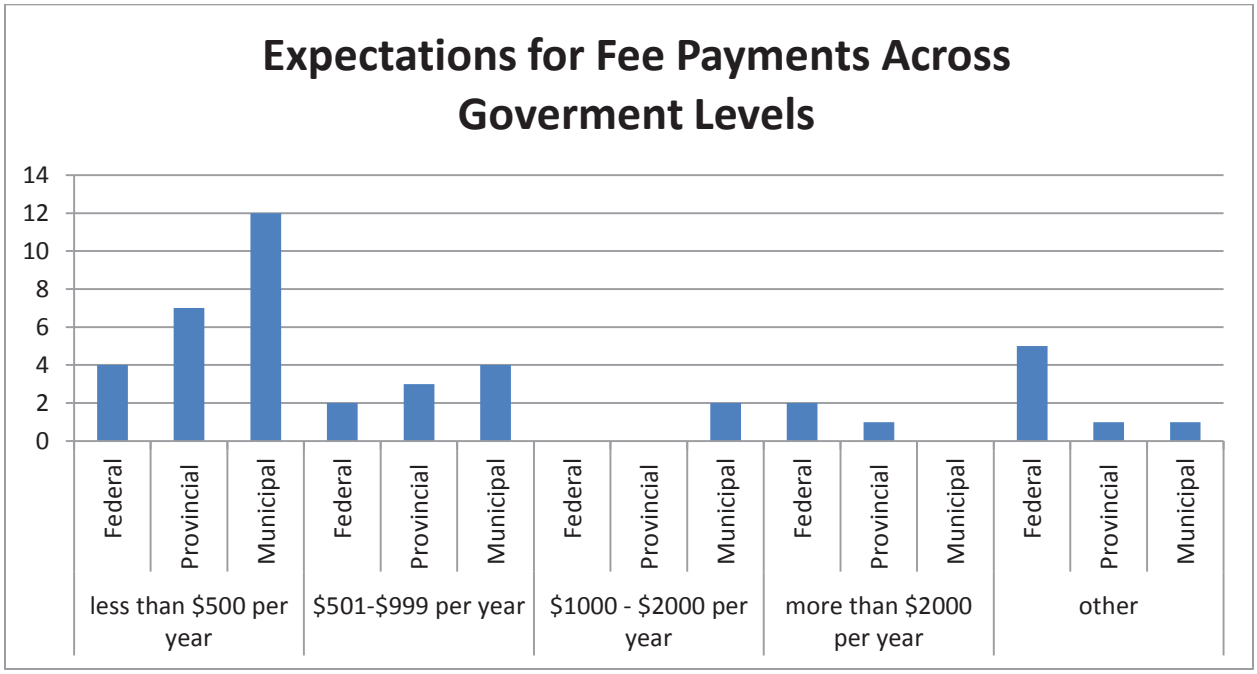

Figure 3-49: Expectations for Fee Payments Across Government Levels

4 DISCUSSION

This report presents the work associated with the development of a web-based assessment that was administered to the personnel in the EM community. The assessment was administered to registered MASAS users from the EM community, members of the Federal Operations Centres Working Group, the FPT IWG and a group of vendors. The results of the assessment contribute to the transition plan that will be developed with the FPT IWG for the national-level, fully supported MASAS service.

The transition of the MASAS capability to an NFP organization received support from the EM community. The results of the assessment indicate that the EM community associates value with the MASAS capability and this value could be carefully transferred from a government program to a NFP organization. The NFP organization will be responsible for the governance and oversight of the MASAS capability. This will require the leaders of the organization to ensure that appropriate processes are established to reinforce the value of the MASAS capability and the credibility of the 'unclassified' information that is displayed.

MASAS is typically used during on-going emergency events and the value of the capability is generally associated with having access to accurate and current information, relative to a geospatial reference, that will assist organizations with their response planning. It is important to highlight to the EM community that this value is delivered by the single point of access, via MASAS, that is provided for important information. The MASAS capability is enabled by technology. In some cases, the comments provided by the respondents indicated that the value of the capability was intertwined with the technology that underlies the capability.

There appears to be a direct relationship between the level of participation from the EM community and the perceived value of the information. That is, the greatest benefits will be delivered when most, if not all, members of the EM community contribute to the information that is displayed within MASAS. Currently, the usage levels vary widely from some EM organizations having infrequent or no access to the capability to other EM organizations that use the capability more frequently. EM organizations will be more likely to access the capability when there are other organizations within their geographic region that contribute information and therefore enhance the overall situational awareness of the on-going event. This factor will be especially important within the next 12-18 months as most of the EM organizations expect to increase their usage of the MASAS capability.

Respondents indicated that they tend to trust the information and are satisfied with the accuracy of the information that is currently displayed on MASAS. However, it is important to note that the respondents are likely to spend time confirming the accuracy and currency of the information prior to sharing the information within their own organizations. This finding underscores the importance that is placed upon obtaining accurate and current information. In addition, it is likely that the SOPs followed within EM organizations require personnel to confirm information prior to disseminating it so that the decision makers are certain to have access to the most relevant information. Furthermore, confirming the validity of the information is essential to build and maintain confidence in the MASAS capability. Taken together, these findings suggest that the use of the MASAS may facilitate the information gathering activities. However, it will not eliminate the need to confirm the validity of the information or to reduce the time required to make decisions within the organization, until changes in the overall gathering and handling of information by personnel are made.

There is limited support or willingness to pay to access the MASAS capability. The results indicate that most respondents willing to pay would recommend an annual fee less than $500 per year to access the MASAS capability. The municipal level of government was more willing to pay than the other levels of government. Despite this willingness, the municipal level of government may not have the funds available to pay for MASAS on a predictable and yearly basis. This funding situation will make it difficult to provide accurate forecasts that will be needed to gauge the multi-year sustainability of the NFP organization. This value must be highlighted as the business case is developed for continued use of MASAS.

Much of the information that is needed during emergency events can be freely accessed even though the users have to refer to multiple sources (i.e., phone, government websites, email, text, social media feeds, etc.) to acquire the information. The primary reasons for using MASAS are to inform personnel, assist in planning and maintain partnerships. There is value to be found that allows users to access all information from a single location but this value must be highlighted to the EM community. This is essential to support these EM organizations in their effort to build a business case to pay for continued access to the MASAS capability.

The introduction of a service-based model which will charge fees to EM organizations to access the MASAS capability is likely to reduce the number of authorized users, unless there is an improved value proposition. This reduction in membership will occur for the following reasons: insufficient funds available within the organization to pay the fees, insufficient value provided by MASAS and the perspective that MASAS is and should continue to be a publicly funded initiative. As a result of the reduced membership, less information will be entered into the system which will in turn reduce the overall value of the system to the EM community. These issues will need to be addressed when developing a fee structure that will require payments from the organizations within the EM community.

Finally, the results of this study provide general guidance for conducting a web-based assessment. First, the software application should accommodate multiple languages, in the present case both English and French versions were generated, and ensure that changes which are made to the format or flow of the questions (e.g., branching of questions, links between questions, etc.) within one language are automatically implemented or highlighted within versions that present the assessment in an alternate language. Second, most of the responses were received within the first three days of the initial invitation that was issued to the respondents. This pattern was also observed in response to the reminder invitation that was emailed one week later. These observations indicate that the overall level of response was augmented as a result of issuing the reminder invitation to the participant group.

5 SUMMARY

This section presents summary of the findings that were identified during the course of the study.

5.1 Use of MASAS

MASAS is trusted and users are satisfied with the information that is accessed through the capability. However, this capability is typically used only during an on-going emergency event. Feedback suggests that most EM organizations, especially municipal and federal levels, expect to increase usage levels within the next 12-18 months. A critical factor in increasing the usage is the perception that the adoption of the capability by other EM organizations is increasing, leading to increased information inputs and more valuable information. There is a perception that the value, accuracy and currency of the information is dependent upon participation from the wider EM community. For this reason, there is substantial support for including U.S. border states and CI owners in the MASAS membership.

Suggested improvements to the MASAS capability were primarily concerned with updates to the features and functionalities provided through the technology that delivers the MASAS capability. This suggests that there is a need to improve the understanding of the MASAS capability. Alternatively, these data could reflect the need for improving the functionality of the system that supports situational awareness.

The EM community needs to associate the MASAS capability with the ability to improve situational awareness. This improvement in situational awareness is made possible because the EM community can access critical, geospatial information from a single location. This capability is supported by the technology that has been developed to enable the sharing (i.e., viewing and inputting) of information. This distinction between the concept of the MASAS capability and the technology that enables the capability may improve the perceived value that is associated with the MASAS capability. If improvements are to be made to the technology that underlies the MASAS capability within the next 12-18 months it would be advantageous to address improvements that highlight the MASAS capability and improve the overall usability of the tool.

5.2 Governance of MASAS

The MASAS capability, as developed and funded by the federal government, has earned credibility within the EM community. There is support for transitioning MASAS capability to a NFP organization however, this transition will need to maintain the credibility for MASAS that is currently held by the EM community. Credibility appears to be determined by the relevance of the data that is associated with the capability as well as the relevance of the EM personnel who have a lead role in defining the requirements for the capability.

Consensus by the EM community to use a particular standard for information exchange (e.g., Open Geospatial Consortium (OGC) standards or Organization for the Advancement of Structured Information Standards (OASIS) standards) could be easier to achieve than a legislated requirement or a mandate to use a specific technology-based system or service.

The governance for the MASAS capability will need to continue to include representation from all levels of government and particularly the stakeholders associated with SOREM, federal departments, provincial/territorial and municipal organizations.

5.3 Fees

Most respondents do not support paying fees to have access to the MASAS capability. They are concerned that the introduction of fees will reduce adoption, and it is clear that they would like to see the current federally funded model continue. The value proposition will also need to improve which will be augmented by increased adoption. The findings suggest that MASAS, in its current state, provides insufficient value to justify paying for a service. Most of the respondents who indicated that they would both support and recommend paying for access to the capability are at the municipal level where the funding is either extremely limited, unavailable or must be approved on a year-by-year basis. Most of the municipal level respondents indicated that they would expect to pay 'less than $500 per year'. This financial context does not support a sustainable fee-based service over time.

Further, much of the information that is displayed in MASAS is available through alternate services such as Google Crisis™. The EM community must recognize that there is value associated with the ability to access and input relevant information, from a single browser-based location, which is needed to plan for and respond to an emergency event. Without this recognition of the MASAS capability it is unlikely that EM personnel will be able to justify paying for service on a continuous basis.

Improving the overall adoption rate of the MASAS capability will require a federal-level authority, such as the governing bodies for the MASAS capability, to advocate that EM organizations adopt this approach. There are multiple methods through which this could occur, including mandating the use of the MASAS technology that underlies the MASAS capability, or recognizing the MASAS capability as a standard that must be employed by all EM organizations. Regardless, of how this capability continues to be implemented, support will be needed to train EM personnel and integrate this capability within the existing toolsets that are used within each EM organization.

5.4 Limitations of this Study

An analysis of the responses revealed an overall response rate of 19.7% (i.e., 144 out of 730) whereby respondents answered at least one question. This response rate is consistent with web-based surveys[7], web-based surveys that include large invitation lists[8] and in fact is higher than response rates for web-based surveys that have been reported[9] . A limitation of all surveys is that they are associated with a self-selected group of people who choose to participate. However, given the high level of consistency observed across the responses the data were interpreted to be representative of the larger EM community.

[7]Deutshens, E., Ruyter, K. Wetzels, M. &Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: an experimental study. Marketing Letters 15(1), 21-36, http://arno.unimaas.nl/show.cgi?fid=2724

[8] Hamilton, M.B. (2009). Online survey response rates and times. Ipathia, Inc. Supersurvey.http://www.supersurvey.com/papers/supersurvey_white_paper_response_rates.pdf

[9]Monroe, M.C. & Adams, D.C. (2012). Increasing response rates to web-based surveys. Journal of Extension, 50(6), 6http://www.joe.org/joe/2012december/tt7.php

APPENDIX A ASSESSMENT TOOL

A.1 English Version

Multi-Agency Situational Awareness System Assessment
Welcome Message

Welcome to the Multi-Agency Situational Awareness System (MASAS) Assessment!

During the first quarter of 2013, the MASAS National Implementation Team held meetings with representatives of the Federal-Provincial-Territorial Interoperability Working Group (FPT IWG) to discuss the transition of MASAS to a sustainable business model. This transition work is outlined as an action item in the 2013 Communications Interoperability Action Plan for Canada .Emergency Management. During these sessions several topics were discussed including products, services, community membership, governance, operations and a revenue model.

The purpose of this assessment is to gather feedback from personnel with a tactical, operational or strategic role in the emergency management (EM) community. This assessment will collect responses regarding the current and future use of the MASAS within the EM community.

Data relevant to the value of the system, patterns of usage, membership types and requirements and the options available for sustaining the system will be gathered. The results will inform the members of the FPT IWG as they determine the most effective method to transition MASAS service.

All data will be treated anonymously in the final summary report.

Thank-you for your assistance!

General Questions

The following questions are related to the role of your organization within the emergency management community.

1. **What is the name of your organization? _____**

2. **What is your email address? _____**

3. **Please identify your *primary* role within your organization.**

    a. **Tactical role**: Immediate response to an incident that threatens human safety or causes the destruction of property. The response will likely last under one hour.

    b. **Operational role**: Response to an incident that involves the coordination of multiple agencies' resources. The response will likely last more than an hour and will likely involve activation of the appropriate emergency management organization.

    c. **Strategic role**: Coordination of resources by responder and non-responder personnel to manage the implications of a major incident. This response will likely last days and will involve coordination with officials, including the potential of elected officials, from other

municipal, provincial and / or federal government agencies, or agencies outside of governments involved in the management of the incident(s) in question.

4. Please identify the type of organization for which you work.

a. Government organization

b. Private sector organization

c. Non-governmental organization (NGO)

d. Other: _____

5. Which level of government applies to your organization?

a. Federal

b. Aboriginal

c. Provincial/Territorial

d. Municipal

6. Please indicate the type of role your organization has within the federal government.

a. Operational mandate

b. Policy and program development

c. Other: _____

7. Please indicate the type of role your organization has within the Aboriginal government.

a. Operational mandate

b. Policy and program development

c. Other: _____

8. Please indicate the type of role your organization has within the provincial/territorial government.

a. Operational mandate

b. Policy development

c. Other: _____

9. What is the population in your municipality?

a. Less than 10,000 people

b. 10,001 – 50,000 people

c. 50,001 – 100,000 people

d. 100,001 – 250,000 people

e. More than 250,000 people

10. Please indicate the type of role your organization has within the private sector.

a. Critical Infrastructure (CI) owner: (CI refers to processes, systems, facilities, technologies, networks, assets and services essential to the health, safety, security or economic well-being of Canadians and the effective functioning of government. Critical infrastructure can be stand-alone or interconnected and interdependent within and across provinces, territories and national borders. Disruptions of critical infrastructure could result in catastrophic loss of life, adverse economic effects and significant harm to public confidence.)

b. Academic Institution

c. Vendor

d. Service Provider

e. Other (please specify) _____

11. Which CI sector is relevant to your organization?

a. Energy and Utilities

b. Finance

c. Food

d. Transportation

e. Government

f. Information and communication technology

g. Health Care

h. Water

i. Safety

j. Manufacturing

Current and Future Usage of MASAS Questions

The following questions apply to your organization's current and future usage of MASAS.
12. Please indicate how often MASAS is typically used by your organization today.

a. Daily

b. Weekly

c. Monthly

d. Only while emergency incidents are on-going

e. Never

13. Please indicate the extent to which you trust the information displayed on the current version of MASAS.

a. Always

b. Often

c. Sometimes

d. Rarely

e. Never

14. Do you typically confirm accuracy and currency of the information with someone BEFORE you share it within your organization today?

a. Always

b. Often

c. Sometimes

d. Rarely

e. Never, there is no need to confirm it

15. Are you satisfied with the accuracy of the information that is displayed on MASAS today?

a. Always

b. Often

c. Sometimes

d. Rarely

e. Never

16. Please identify the main reasons your organization uses MASAS (Check all that apply).

a. To input/enter information into MASAS (for sharing with other EM organizations).

b. To review information that was entered by other EM organizations.

c. To monitor events within the EM community.

d. Maintain contact with EM community and partnering organizations.

e. To maintain familiarity with the MASAS technology.

f. To train operational personnel on implementing emergency procedures.

g. Other: _____.

17. Currently, how useful is MASAS to your organization?

a. Extremely useful

b. Very useful

c. Somewhat useful

d. A little useful

e. Not at all Useful

18. Please explain why MASAS is NOT useful to your organization.

_____

19. Please indicate how MASAS is used by your organization?(Check all that apply.)

a. Informs operational/tactical personnel

b. Assists in planning and decision making

c. Reduces risks in developing a response

d. Maintains partnerships between EM organizations

e. Other: _____.

20. Compared to your organization's current usage of MASAS how do you expect MASAS will be used in the next 12-18 months?

a. Level of future usage will stay the same

b. Level of future usage will increase

c. Level of future usage will decrease

21. Please explain how your organization's usage of MASAS is expected to change in the future.

_____

22. Please identify any suggestions that would make MASAS more useful to your organization now or in the future.

_____

Membership and Governance Questions

23. A recent analysis indicated that MASAS could be transitioned to a Not-for-Profit (NFP) organization. An NFP organization is a corporation that uses profits to pursue the organization's objective and does not distribute profits to the owners. Do you think that MASAS could be managed effectively by an NFP organization?

a. Yes

b. No

24. Why do you think that an NFP organization could NOT manage the MASAS in an effective manner?

_____

25. Who do you think should be responsible for governing the MASAS initiative? (Check all that apply)

a. Senior Officials Responsible for Emergency Management

b. Federal departments

c. Provincial/territorial government emergency management organizations

d. Municipal emergency management organizations

e. Police, Fire and Paramedic Chiefs organizations

f. Non-government emergency management organizations

g. Other: _____

26. Should private CI owners be permitted to become members of the MASAS organization and view the 'non-classified' information displayed in MASAS?

(CI refers to processes, systems, facilities, technologies, networks, assets and services essential to the health, safety, security or economic well-being of Canadians and the effective functioning of government. Critical infrastructure can be stand-alone or interconnected and interdependent within and across provinces, territories and national borders. Disruptions of critical infrastructure could result in catastrophic loss of life, adverse economic effects and significant harm to public confidence.)

a. Yes

b. No

27. Please explain why you think private CI owners should be permitted to be members in MASAS.

_____

28. Please explain why you think private CI owners should NOT be permitted to be members in MASAS.

_____

29. Should U.S. border states and communities be permitted to become members of the MASAS organization and view the 'non-classified' information displayed in MASAS?

a. Yes

b. No

30. Please explain why you think U.S. border states and communities should be permitted to be members in MASAS.

_____

31. Please explain why you think U.S. border states and communities should NOT be permitted to be members in MASAS?

_____

Payment Questions

32. Do you support member organizations paying fees to use the MASAS service?

a. Yes

b. No

33. Please explain why you think members should NOT pay a fee for using the MASAS service.

_____

34. Do you make investment or purchasing decisions for your organization?

a. Yes

b. No

35. Do you think your organization would be willing to pay to use MASAS?

a. Yes

b. No

c. Don't know

36. Would you RECOMMEND paying for the MASAS service to the decision makers in your organization?

a. Yes

b. No

37. Please explain why you would NOT recommend paying for the MASAS service.

_____

38. What fee would you expect your organization to pay for having access to MASAS?

a. Less than $500 per year

b. $501 - $999 per year

c. $1000 – 2000 per year

d. More than $2000 per year

e. Other (please specify): _____

Thank-you Message

Thank you for participating in the MASAS assessment. Your feedback will contribute to the transition plan for the national-level fully supported MASAS service.

A.2 French Version

Évaluation sur le Système interorganisationnel de connaissance de la situation (SICS)

Mot de bienvenue

Nous vous remercions d'avoir accepté de remplir le évaluation sur le Système interorganisationnel de connaissance de la situation (SICS).

Au cours du premier trimestre de 2013, l'équipe de mise en œuvre nationale du SICS a tenu des réunions avec les représentants du Groupe de travail fédéral-provincial-territorial sur l'interopérabilité (GTFPTI) afin de discuter de la transition du SICS vers un modèle organisationnel durable. Ce travail de transition est décrit comme un point nécessitant un suivi dans la Stratégie d'interopérabilité des communications pour le Canada et le Plan d'action connexe (http://www.securitepublique.gc.ca/prg/em/cisc-ap-fra.aspx), approuvés par les hauts fonctionnaires responsables de la gestion des urgences. Plusieurs sujets ont été discutés pendant ces séances, notamment les services, les produits, les membres de la collectivité, la gouvernance, les opérations et le modèle de revenus.

La présente évaluation vise à recueillir les commentaires du personnel jouant un rôle tactique, opérationnel ou stratégique dans la collectivité de la gestion des urgences (GU). Ce évaluation portera sur l'utilisation actuelle et future du SICS au sein de la collectivité de la GU.

Des données portant sur la valeur du système, les modèles d'utilisation, les types de membres et les exigences ainsi que les options disponibles pour le maintien du système seront recueillies. Les résultats seront utiles aux membres du GTFPTI puisqu'ils permettront de déterminer la méthode de transition au SICS la plus efficace.

Toutes les données seront traitées de manière confidentielle dans le rapport sommaire définitif.

Nous vous remercions pour votre aide.

Questions générales

Les questions suivantes portent sur le rôle de votre organisation au sein de la collectivité de la gestion des urgences.

39. Quel est le nom de votre organisation? _____

40. Quelle est votre adresse électronique? _____

41. Veuillez indiquer votre rôle *principal* au sein de votre organisation.

a. **Tactique :** Intervention immédiate en cas d'incident menaçant la sécurité humaine ou causant la destruction de biens. L'intervention durera vraisemblablement moins d'une heure.

b. **Opérationnel :** Intervention en cas d'incident nécessitant la coordination de ressources provenant de multiples organismes. L'intervention durera vraisemblablement plus d'une

heure et nécessitera probablement l'activation de l'organisation de gestion des urgences appropriée.

c. **Stratégique :** Coordination des ressources par le personnel des répondants et des non-répondants afin de gérer les répercussions d'un incident majeur. Cette intervention durera probablement des jours et comprendra la coordination avec les responsables, y compris la possibilité de représentants élus provenant d'autres organismes municipaux, provinciaux ou fédéraux ou d'organismes de l'extérieur du gouvernement qui participent à la gestion de l'incident en question.

42. Veuillez indiquer le type d'organisation pour lequel vous travaillez.

a. Organisation gouvernementale

b. Organisation du secteur privé

c. Organisation non gouvernementale (ONG)

d. Autre : _____

43. Quel niveau de gouvernement s'applique à votre organisation?

a. Fédéral

b. Autochtone

c. Provincial/territorial

d. Municipal

44. Veuillez indiquer le type de rôle que joue votre organisation au sein du gouvernement fédéral.

a. Mandat opérationnel

b. Élaboration de politiques et de programmes

c. Autre : _____

45. Veuillez indiquer le type de rôle que joue votre organisation au sein du gouvernement autochtone.

a. Mandat opérationnel

b. Élaboration de politiques et de programmes

c. Autre : _____

46. Veuillez indiquer le type de rôle que joue votre organisation au sein du gouvernement provincial/territorial.

a. Mandat opérationnel

b. Élaboration de politiques et de programmes

c. Autre : _____

47. Quelle est la population de votre municipalité?

a. Moins de 10 000 personnes

b. De 10 001 à 50 000 personnes

c. De 50 001 à 100 000 personnes

d. De 100 001 à 250 000 personnes

e. Plus de 250 000 personnes

48. Veuillez indiquer le type de rôle que joue votre organisation au sein du secteur privé.

a. Propriétaire d'une infrastructure essentielle (IE) : (On entend par IE les processus, les systèmes, les installations, les technologies, les réseaux, les biens et les services qui sont essentiels à la santé, à la sécurité ou au bien-être économique des Canadiens et au bon fonctionnement du gouvernement. Il peut s'agir d'infrastructures autonomes, interconnectées ou interdépendantes au sein d'une province ou d'un territoire, entre des provinces et des territoires et à l'échelle nationale ou entre plusieurs pays. Les perturbations des infrastructures essentielles peuvent entraîner des pertes de vie catastrophiques, avoir des effets néfastes sur l'économie et ébranler considérablement la confiance du grand public.)

b. Établissement d'enseignement

c. Vendeur

d. Fournisseur de services

e. Autre (veuillez préciser) _____

49. Quel secteur d'IE est pertinent à votre organisation?

a. Énergie et services publics

b. Finances

c. Nourriture

d. Transports

e. Gouvernement

f. Communications et technologie de l'information

g. Soins de santé

h. Eau

i. Sécurité

j. Fabrication

Questions relatives à l'utilisation actuelle et future du SICS

Les questions suivantes portent sur l'utilisation actuelle et future du SICS par votre organisation.

50. Veuillez indiquer à quelle fréquence votre organisation utilise habituellement le SICS.

a. Chaque jour

b. Chaque semaine

c. Chaque mois

d. Uniquement lorsque des urgences ont lieu

e. Jamais

51. Veuillez indiquer dans quelle mesure vous faites confiance à l'information figurant dans la version actuelle du SICS.

a. Toujours

b. Souvent

c. Parfois

d. Rarement

e. Jamais

52. Confirmez-vous habituellement l'exactitude et l'actualité de l'information avec une autre personne AVANT de la communiquer au sein de votre organisation?

a. Toujours

b. Souvent

c. Parfois

d. Rarement

e. Jamais, ce n'est pas nécessaire.

53. Êtes-vous satisfait de l'exactitude de l'information que présente la version actuelle du SICS?

a. Toujours

b. Souvent

c. Parfois

d. Rarement

e. Jamais

54. Indiquer les raisons principales pour lesquelles votre organisation utilise le SICS (cochez toutes les réponses applicables).

a. Saisir l'information dans le SICS (afin de la communiquer à d'autres organisations de GU)

b. Consulter l'information consignée par d'autres organisations de GU.

c. Surveiller les événements au sein de la collectivité de la GU.

d. Demeurer en contact avec la collectivité de la GU et les organisations partenaires.

e. Conserver une bonne connaissance de la technologie du SICS.

f. Former le personnel opérationnel sur la mise en œuvre des procédures d'urgence.

g. Autre : _____.

55. Actuellement, à quel point le SICS est-il utile pour votre organisation?

a. Extrêmement inutile

b. Très utile

c. Plutôt utile

d. Un peu utile

e. Totalement utile

56. Expliquez les raisons pour lesquelles le SICS n'est PAS utile pour votre organisation.

_____

57. Expliquez à quelles fins votre organisation utilise le SICS (cochez toutes les réponses applicables).

a. Informer le personnel opérationnel et tactique.

b. Aider à la planification et à la prise de décisions.

c. Réduire les risques au moment de la préparation de l'intervention.

d. Maintenir des partenariats entre les organisations de GU.

e. Autre : _____.

58. Comparativement à l'utilisation que votre organisation fait actuellement du SICS, dans quelle mesure votre organisation utilisera-t-elle le SICS au cours des prochains 12 à 18 mois?

a. Le niveau d'utilisation sera le même qu'aujourd'hui.

b. Le niveau d'utilisation augmentera.

c. Le niveau d'utilisation diminuera.

59. Veuillez expliquer comment l'utilisation du SICS dans votre organisation compte changer à l'avenir.

_____

60. Indiquez les suggestions qui pourraient être apportées au SICS afin qu'il soit plus utile pour votre organisation aujourd'hui ou à l'avenir.

_____

Questions relatives à la composition (membres) et à la gouvernance

61. Une analyse récente indique que le SICS pourrait faire l'objet d'une transition afin de devenir un organisme sans but lucratif (OSBL). Un OSBL utilise les profits pour atteindre l'objectif de l'organisation plutôt que de les distribuer aux propriétaires. Selon vous, un OSBL pourrait-il gérer le SICS de manière efficace?

a. Oui

b. Non

62. Selon vous, pourquoi un OSBL NE pourrait PAS gérer le SICS de manière efficace?

_____

63. Selon vous, qui devrait être chargé de la gouvernance de l'initiative du SICS (cochez toutes les réponses applicables)?

a. Hauts fonctionnaires responsables de la gestion des urgences

b. Ministères fédéraux

c. Organisations gouvernementales de gestion des urgences provinciales et territoriales

d. Organisations de gestion des urgences municipales

e. Services de police, d'incendie et ambulanciers

f. Organisations non gouvernementales de gestion des urgences

g. Autre : _____

64. Devrait-on autoriser les propriétaires d'IE du secteur privé à devenir membres de l'organisation du SICS et à consulter les informations non classifiées figurant dans le SICS?

(On entend par IE les processus, les systèmes, les installations, les technologies, les réseaux, les bienset les services qui sontessentiels à la santé, à la sécuritéou au bien-êtreéconomique des Canadiens et au bon fonctionnement du gouvernement. Ilpeuts'agird'infrastructuresautonomes, interconnectéesouinterdépendantes au seind'une province ou d'un territoire, entre des provinces et des territoires et à l'échellenationaleou entre plusieurs pays. Les perturbations des infrastructures essentiellespeuvententraîner des pertes de vie catastrophiques, avoir des effetsnéfastessurl'économieetébranlerconsidérablement la confiance du grand public.)

a. Oui

b. Non

65. Veuillez expliquer pourquoi, selon vous, les propriétaires d'IE privés devraient être autorisés à devenir membres de l'organisation du SICS.

_____

66. Veuillez expliquer pourquoi, selon vous, les propriétaires d'IE privés NE devraient PAS être autorisés à devenir membres de l'organisation du SICS.

_____

67. Devrait-on autoriser les collectivités et les États frontaliers américains à devenir membres de l'organisation du SICS et à consulter les informations non classifiées figurant dans le SICS?

a. Oui

b. Non

68. Veuillez expliquer pourquoi, selon vous, les collectivités et les États frontaliers américains devraient être autorisés à devenir membres de l'organisation du SICS.

_____

69. Veuillez expliquer pourquoi, selon vous, les collectivités et les États frontaliers américains NE devraient PAS être autorisés à devenir membres de l'organisation du SICS.

_____

<u>Questions relatives au paiement</u>

70. Selon vous, les organisations membres devraient-elles débourser des frais pour utiliser le SICS?

a. Oui

b. Non

71. Veuillez expliquer pourquoi, selon vous, les membres NE devraient PAS débourser de frais pour l'utilisation du SICS.

_____

72. Prenez-vous des décisions d'investissement ou d'achat pour votre organisation?

a. Oui

b. Non

73. Pensez-vous que votre organisation accepterait de débourser des frais pour utiliser le SICS?

a. Oui

b. Non

c. Je ne sais pas

74. Recommanderiez-vous aux décideurs de votre organisation de débourser des frais pour utiliser le SICS?

c. Oui

a. Non

75. Veuillez expliquer les raisons pour lesquelles vous NE recommanderiez PAS de débourser des frais pour utiliser le SICS.

_____

76. Selon vous, quels frais votre organisation devrait-elle débourser pour avoir accès au SICS?

a. Moins de 500 $ par année

b. De 501 à 999 $ par année

c. De 1 000 à 2 000 $ par année

d. Plus de 2 000 $ par année

e. Autre (veuillez préciser) : _____

Message de remerciement

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13. ABSTRACT

This paper describes an approach to build a holistic, cross-government all-hazards risk assessment process, which aims to capture threats of all “stripes” and understand the extent to which they can become a risk to the safety and security of the Canadian population and society. The approach makes a conscious effort to consider the Canadian risk picture within the global risk environment. The federal All-Hazards Risk Assessment (AHRA) initiative aims to develop a mechanism for a comparative assessment and rating of risk events derived

from all hazards (regardless of the source, whether malicious or non-malicious), in order to support emergency management planning in the federal domain. A standardized methodology is pursued in order to leverage the expertise of individual federal departments, share this expertise and knowledge across a community of practice, and generate a whole-of-government view of risks. Methods that attempt to build shared understanding of risks across organizations may be useful to multi-agency problems beyond the Canadian national context.

This document was prepared by CAE Integrated Enterprise Solutions (CAE IES) for the Defence Research and Development Canada (DRDC) Centre for Security Science (CSS) in support of Multi-Agency Situational Awareness System (MASAS) Transition Plan.

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Situational Awareness; Multi-Agency Situational Awareness System (MASAS); Interoperability; Emergency Management; SOREM

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