

Benchmarking the readiness of Road Controlling Authorities to meet their obligations under the CDEM Act 2002

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- CDEM Act 2002 and RCAs
- The RCAs readiness benchmarking
- Results of the web-based survey
- Your feedback and Ideas



CDEM Act 2002 and RCAs

The CDEM Act 2002 requires that lifeline utilities are *“able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency”*



The RCAs readiness benchmarking

EXPECTATIONS AND REQUIREMENTS FOR RCAS UNDER the CDEM ACT 2002

1. Emergency Management Structures and Arrangements - RCAs are expected to develop and maintain appropriate management structures and arrangements;

2. Emergency Management Capability - RCAs are expected to: develop and maintain suitably trained and competent personnel; to exercise co-ordination and cooperation across agency; to enhance the capacity and adequacy of their information sharing; and

3. Emergency Management Capacity - RCAs are expected to: assess the adequacy of their resources in terms of quantity and suitability of equipment facilities, personnel and finances; to assess the adequacy of the road network they are responsible for in terms of robustness and redundancy; to arrange for mutual aid mechanisms and contractual arrangements for emergency response and personnel.

Expectation 1. Emergency Management Structures and Arrangements

Criteria	Indicators	
1.1 Emergency Management (EM) Plans	A1	Structure of the EM Plan
	A2	Damage Assessment Items in the EM Plan
	A3	Impact Assessment Items in the EM Plan
	A4	Provision for additional resources in the EM
	A5	Dedicated personal to maintain the EM Plan
	A6	Budget allocated to create/maintain EM Plan
	A7	Emergency Management Exercise in EM Plan
1.2 Implementation of Response Plans (RP)	B1	Distribution intra-agency of the RP plan
	B2	Distribution inter-agency of the RP plan
	B3	Inter-agency Awareness of the RP plan
	B4	Inter-agency practice of the RP plan
	B5	Intra-agency practice of the RP plan
	B6	Inter-agency performance of the RP plan

Expectation 2. Emergency Management Capability

Criteria	Indicators	
2.1 Coordination and cooperation with lifelines and CDEM groups	C1	Frequency of presence
	C2	Participation in Desk-top Exercises
	C3	Participation in Scenario Based Exercises
	C4	Effective cooperation in planning
	C5	Readiness for cooperation in response
2.2 Information Sharing	D1	Levels of Information Sharing
	D2	Tools/standards to support IS
	D3	Software to support Information Sharing
	D4	Approval and Testing of IS tools/standards
2.3 Experience, Training, Awareness, Leadership of Decision Makers	E1	Professional development strategies
	E2	Items to support professional development

Expectation 3. Emergency Management Capacity

Criteria	Indicators	
3.1 Robustness and Redundancy of the Road Network	F1	Processes and procedures for assessing robustness of the road components
	F2	Processes and procedures for assessing redundancy of the road network
3.2 Rapid Damage Assessment Capacity	G1	Processes and procedures for quickly assessing the damage to road components
	G2	Characteristic of damage and functional assessment process and procedures
	G3	Identification of response and restoration priority
	G4	Software to support damage assessment and priority
3.3 Existing Resources	H1	Management of Physical Critical Resources
	H2	Management of Human Resources
3.4 Contractual Arrangements (CA) and mutual aid mechanisms (MAM) for emergency resources and personnel	I1	Existence of CA and MAM
	I2	Test and Update of CA and MAM
	I3	Type of resources provided under CA and MAM

Expectation 3. Emergency Management Capacity

Criteria	Indicators	
3.1 Robustness and Redundancy of the Road Network	F1	Processes and procedures for assessing robustness of the road components
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	G4	Software to support damage assessment and priority
3.3 Existing Resources	H1	Management of Physical Critical Resources
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3.4 Contractual Arrangements (CA) and mutual aid mechanisms (MAM) for emergency resources and personnel	I1	Existence of CA and MAM
	I2	Test and Update of CA and MAM
	I3	Type of resources provided under CA and MAM

RCA accesses a web-based questionnaire that comprises 35 questions

Benchmarking RCAs Readiness [Exit this survey](#)

1. RCAs Readiness Benchmarking Tool

* 1. A1) Choose the answer that best describes your organisation's emergency management plan (multiple choice).

- No plans;
- In the process of developing plans;
- Plans complete for some department/functions (50%-90% complete);
- Plans complete for all department/functions (over 90%);
- Single-document;
- Multi-volume document;
- Other (please specify)

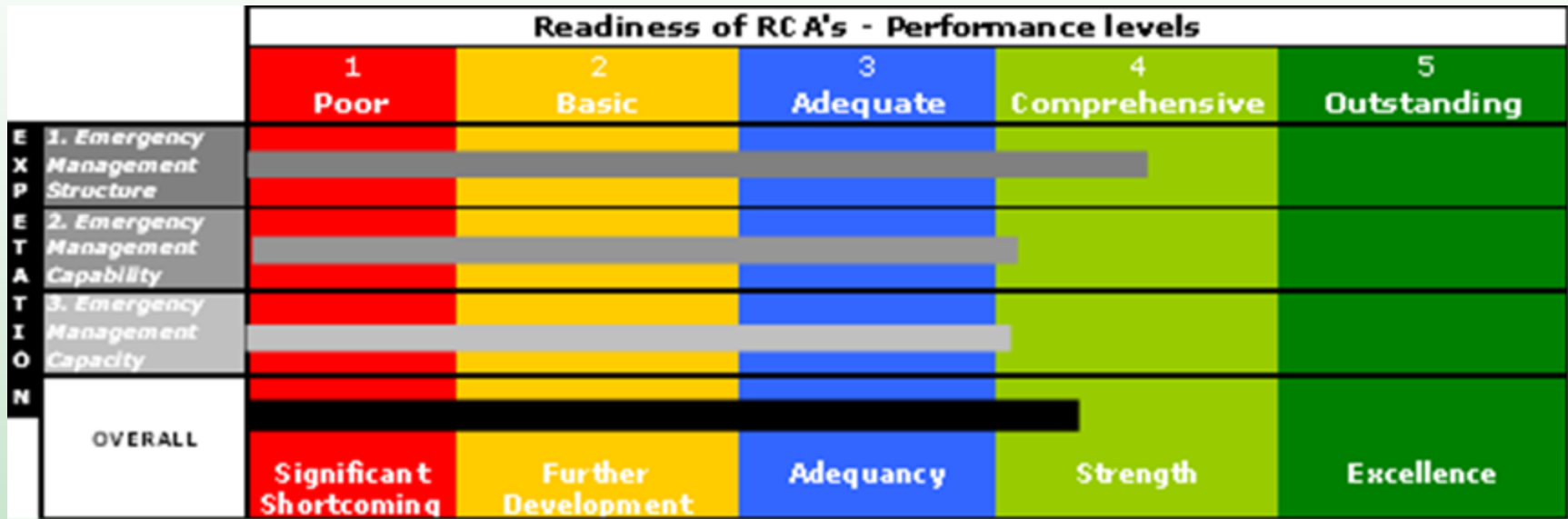
* 2. A2) Which of the following provisions for post-event damage assessment are included in your organisation's emergency management plan? (multiple choices permitted)

- Hazard analysis;
- External risks;
- Specific for critical links (e.g. bridges, tunnels);
- Specific for all the road network components;
- Restoration priorities identification;
- Restoration timings;
- Restoration cost;
- Functional assessment;
- Other (please specify)

Questions/Answers types:

- Single-choice
- Multi-choice
- Other or specific answers

Criteria scores are combined to obtain an averaged score for each Expectation



Level (score)	Performance
Poor (0-1)	<i>area of significant shortcoming</i>
Basic (1-2)	<i>area requiring further development</i>
Adequate (2-3)	<i>area of adequacy</i>
Comprehensive (3-4)	<i>area of strength</i>
Outstanding (4-5)	<i>area of excellence</i>

Marks and scoring systems

The self-assessment tool assigns a mark (in a scale from 1 to 5) to each indicator depending on the reply provided by the RCA to the associated question.

Indicator scores are combined to obtain an averaged score for each criterion

		E1 - Emergency Management Structures and Arrangements				
		1 Poor	2 Basic	3 Adequate	4 Comprehensive	5 Outstanding
C R I T E R I A	1.1 Emergency Management Plans	[Progress bar from 1 to 3]				
	1.2 Implementation of Response Plans	[Progress bar from 1 to 2]				



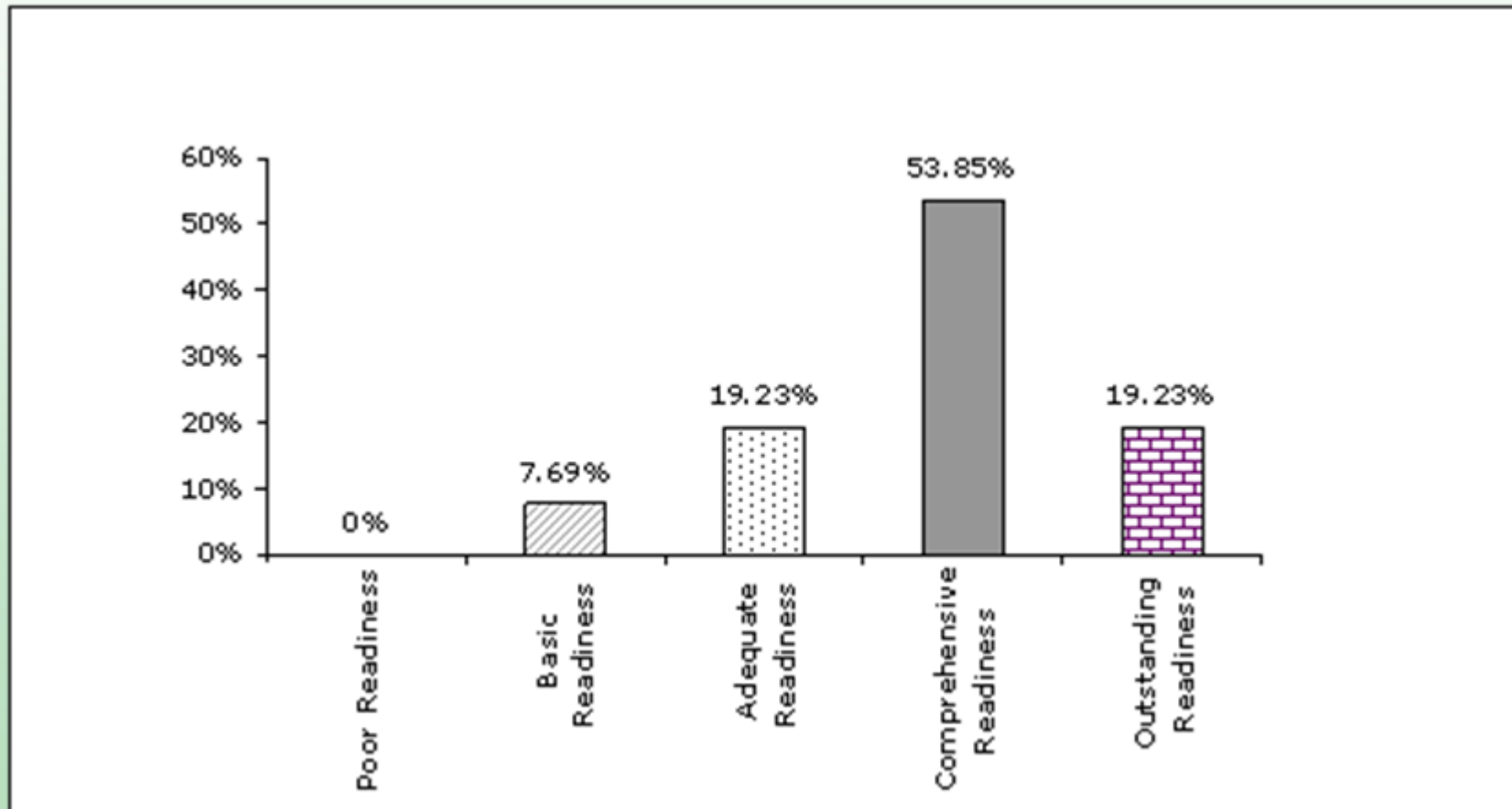
Results of web-based survey

Valid and non-valid responses and level of completion

		Response		Total
		Valid	Non Valid	
<i>Level of completion</i>	<i>Fully Completed</i>	26	4	30
	<i>Partially Completed</i>	3	5	8
	<i>Non Started</i>	12	3	15
	Total	41	12	53



Overall performance

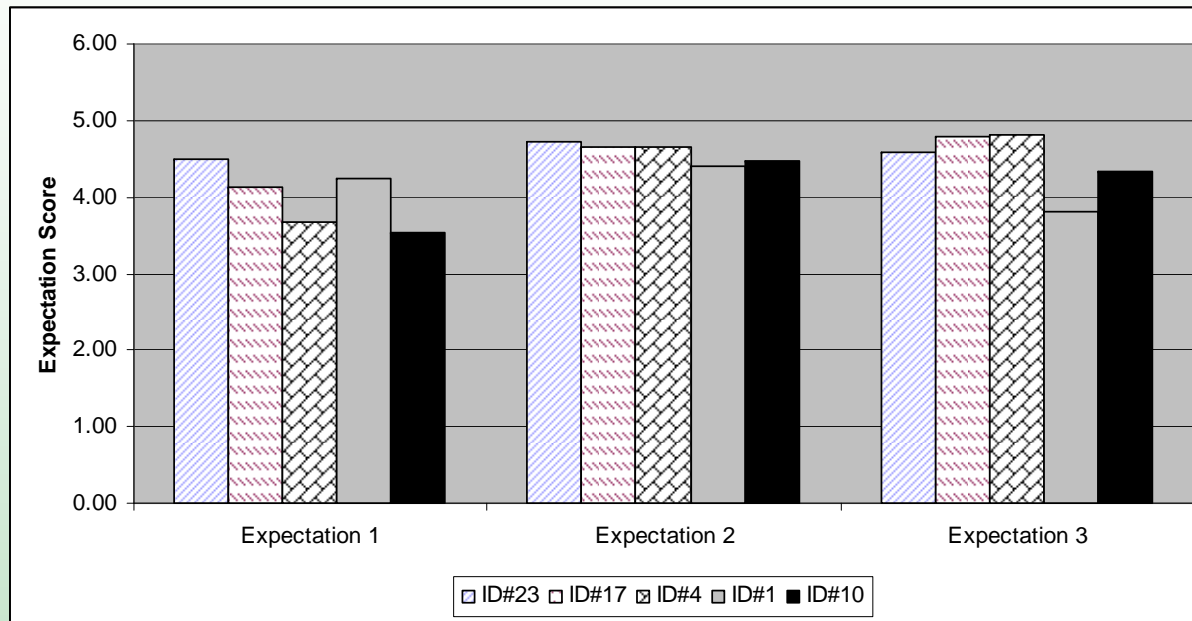




Overall performance

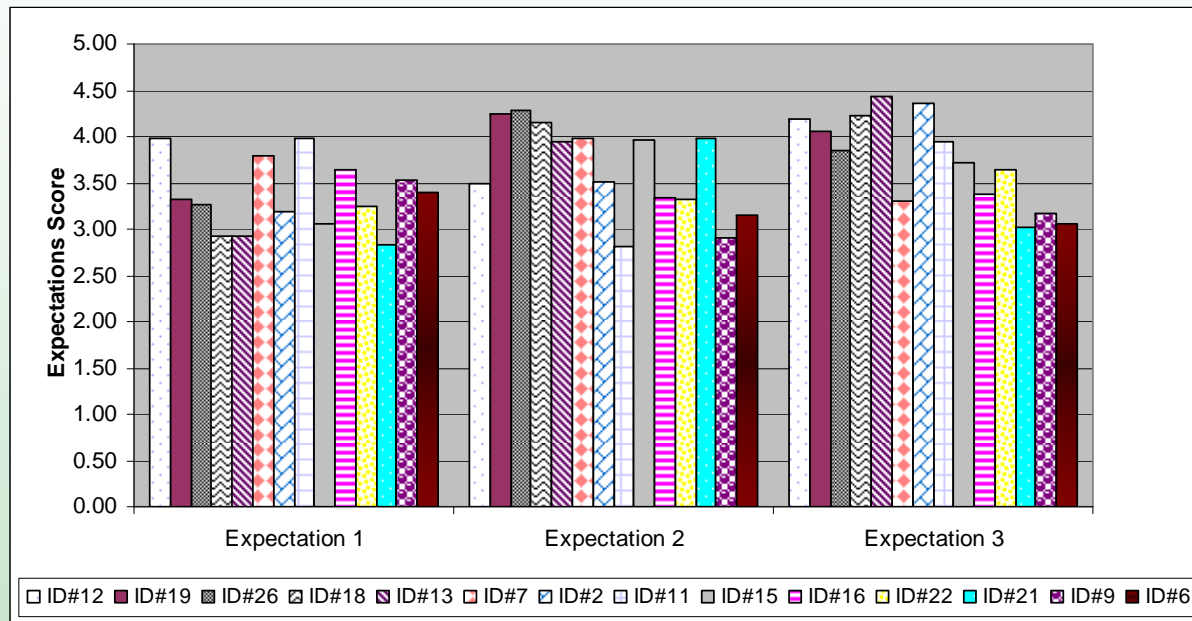
	Readiness of RCA's - Performance levels				
	1 Poor	2 Basic	3 Adequate	4 Comprehensive	5 Outstanding
Readiness Score (R)		3 5	20 25 24 14	8 9 11 13 12 21 16 2 26 18 6 22 15 7 19	1 17 23 10 4

Outstanding performance level



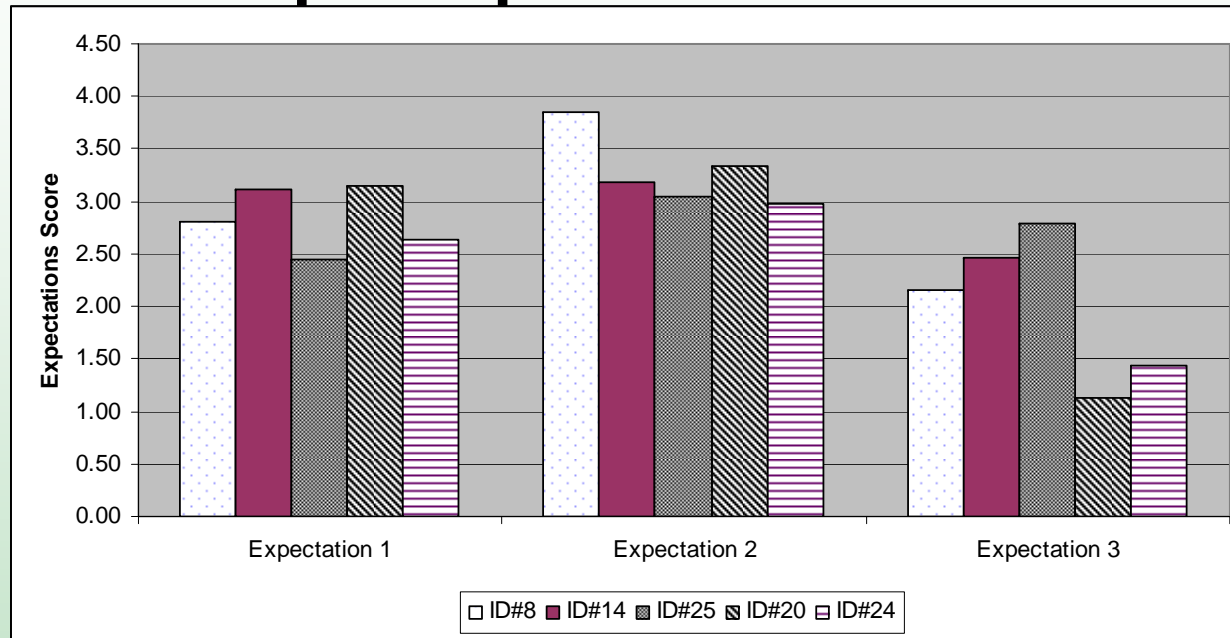
- Significant commitment and understanding of the CDEM Act 2002 requirements and expectations.
- ID 17 and 23 ($E > 4$): developed and maintained appropriate management structures and arrangements, (well circulated emergency plans with comprehensive provisions) and skilled personnel.

Comprehensive performance level



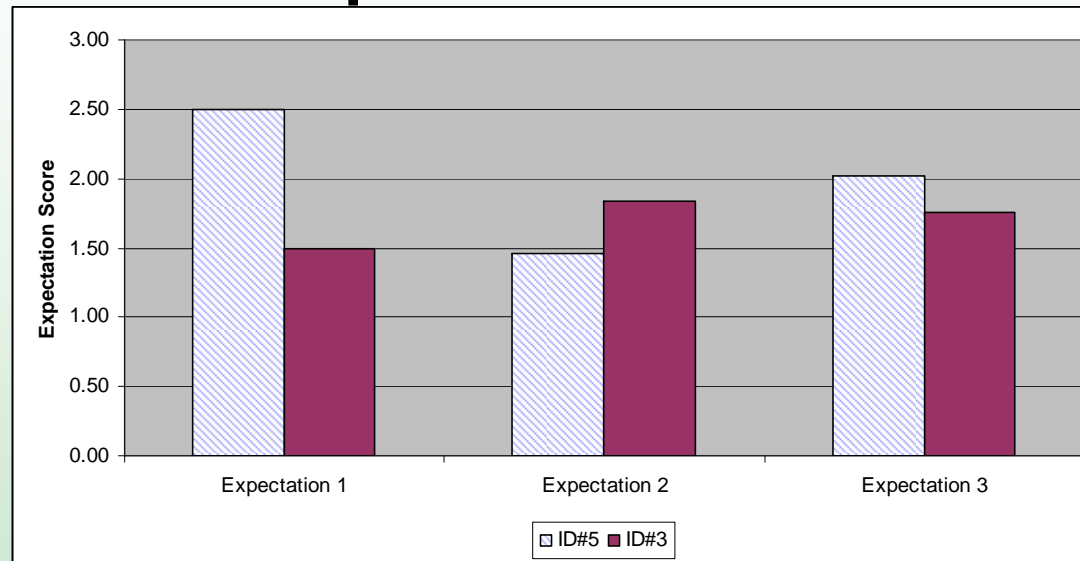
- All met CDEM Act 2002 requirements and expectations, but with limited performance in some criteria.
- ID 9, 11, 13, 18 and 21 scored below the performance threshold ($E < 3$) for expectations 1 and 2 (limited practices for post-event impact assessment and how to measure capabilities and performance following a simulation exercise or a real event).

Adequate performance level



- They met CDEM Act 2002 requirements and expectations, but some of them indicate serious limitations in terms of expectations 1 and 3.
- ID 20 and 24 had indicated considerable limitations in terms of processes/procedures for assessing damage and impacts to the network.

Basic performance level



- These participants have considerable limitations in meeting the CDEM requirements and expectations;
- Expect for ID 5 reasonable performance in terms of having emergency and response plans, both RCAs have:
 - Very limited provisions for post-event damage assessment;
 - Extremely limited provisions for post-event impact assessment;
 - Limited participation in scenario-based exercises
 - Very limited measurement of performance in exercises and real events.

Preliminary findings

- The vast majority of participant RCAs meets the CDEM Act 2002 requirements;
- There are RCAs that have **outstanding** readiness practices in place, as the result of significant commitment and understanding of the CDEM Act 2002 requirements and expectations;
- A small minority of participant RCAs do not meet the minimum requirements of the CDEM Act 2002. This outcome is mostly due to considerable short comings in terms of meeting all expectations.
- It is not statistically possible to use the survey results to express the level of readiness of all RCAs. Nevertheless, the results show that RCAs are working towards a high level of performance;
- There might be a need to create/implement audit schemes to verify the validity of the answers provided by RCAs.



- Is there anything that we are missing?
- Best way to have RCAs participation?
- Link to the survey www.resorgs.org.nz
- How to increase the response rate?
- How to verify the accuracy of the results?
- What should the next steps be?

Thank you for your attention!

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