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CONVENTION  
ON STATISTICS**

03-05 OCTOBER 2022

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# **The Role of the PSA in the Random Manual Audit for the 2022 National and Local Elections**

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## **Outline of Presentation**

1. The Role of the Philippine Statistics Authority in the Random Manual Audit for the 2022 National and Local Elections
2. The Sample Precincts Selection Process
3. The Random Manual Audit Process
4. The 2022 Random Manual Audit Results

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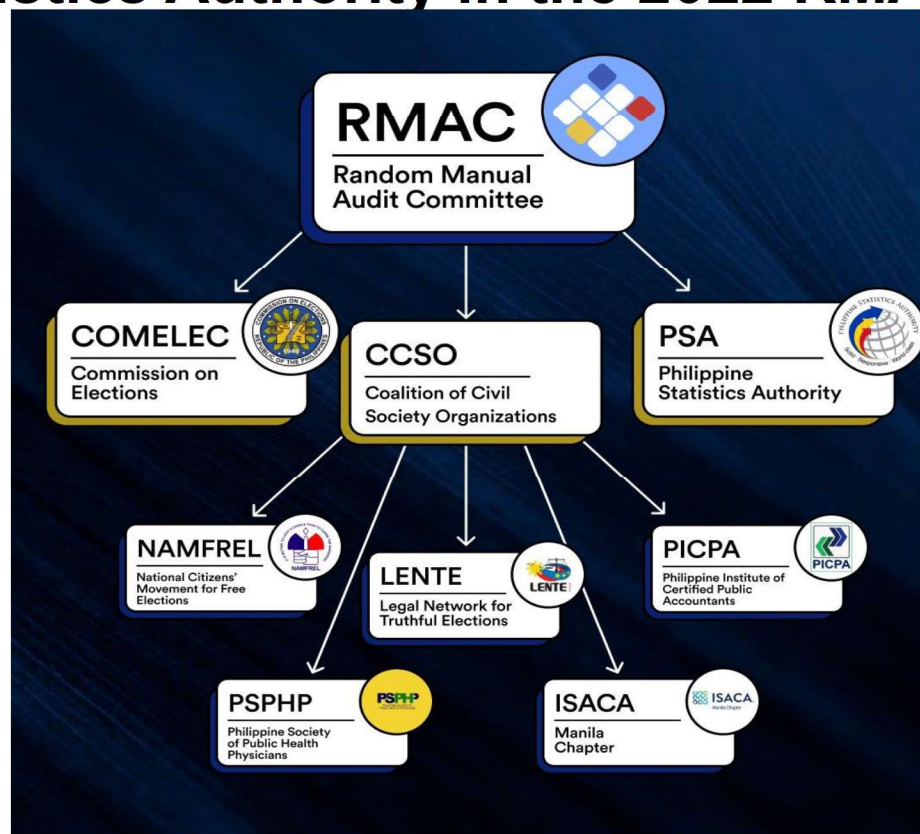
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# The Role of the Philippine Statistics Authority in the 2022 RMA

- Develop the sampling design for selecting sample clustered precincts and estimation of “variance” and accuracy rate for the RMA
- Develop the Automated Random Selection Program (ARSP) and implement sample selection
- Develop Data Capture System to compute “variance” and accuracy rate from the sample clustered precincts
- Prepare reports on the resulting “variance” and accuracy rate



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## Automated Random Selection Program (ARSP)

The random selection of sample clustered precincts is done using an automated random selection program developed by the PSA.



2022 Random Manual Audit Selected Clustered Precincts by Legislative Districts For Random Manual Audit			
Legislative District/ City/Municipality/ Province/Region	Polling Place/ Address/ Barangay	Clustered Precincts	
BASILAN - LONE LEGDIST	SUMAGDANG ELEMENTARY SCHOOL, BARANGAY SUMAGDANG	0122P1, 0122P 0122L, 0122M	
1 CITY OF ISABELA			
BASILAN			
BARMM	SUMAGDANG		
BASILAN - LONE LEGDIST	ISABELA PILOT ELEMENTARY SCHOOL, BARANGAY DOÑA RAMONA	0081F, 0081G, 0081P1, 0081P	
2 CITY OF ISABELA			
BASILAN			
BARMM	SAN RAFAEL		
BASILAN - LONE LEGDIST	CALVARIO ELEMENTARY SCHOOL, BARANGAY CALVARIO	0149B, 0149C,	
3 CITY OF ISABELA			
BASILAN			
BARMM	CALVARIO		

2022 Random Manual Audit Selected Clustered Precincts by Legislative Districts For Random Manual Audit (Contingency Samples)			
Legislative District/ City/Municipality/ Province/Region	Polling Place/ Address/ Barangay	Clustered Precincts	Date and Time Generated
BASILAN - LONE LEGDIST	LAMITAN CENTRAL ELEMENTARY SCHOOL, BARANGAY MAGANDA, LAMITAN CITY	0028A, 0029A, 0030A, 0031A	March 22, 2022 03:13 PM
1 CITY OF LAMITAN			
BASILAN			
BARMM	MATIBAY		
BASILAN - LONE LEGDIST	UBIT ELEMENTARY SCHOOL, BARANGAY UBIT, LAMITAN CITY	0157A, 0157B, 0157C, 0157D	March 22, 2022 03:13 PM
2 CITY OF LAMITAN			
BASILAN			
BARMM	UBIT		
BASILAN - LONE LEGDIST	ALDANA ELEMENTARY SCHOOL, BARANGAY LIMO- OK, LAMITAN CITY	0099A, 0100A, 0101A, 0101I	March 22, 2022 03:13 PM
3 CITY OF LAMITAN			
BASILAN			
BARMM	LIMO-OK		



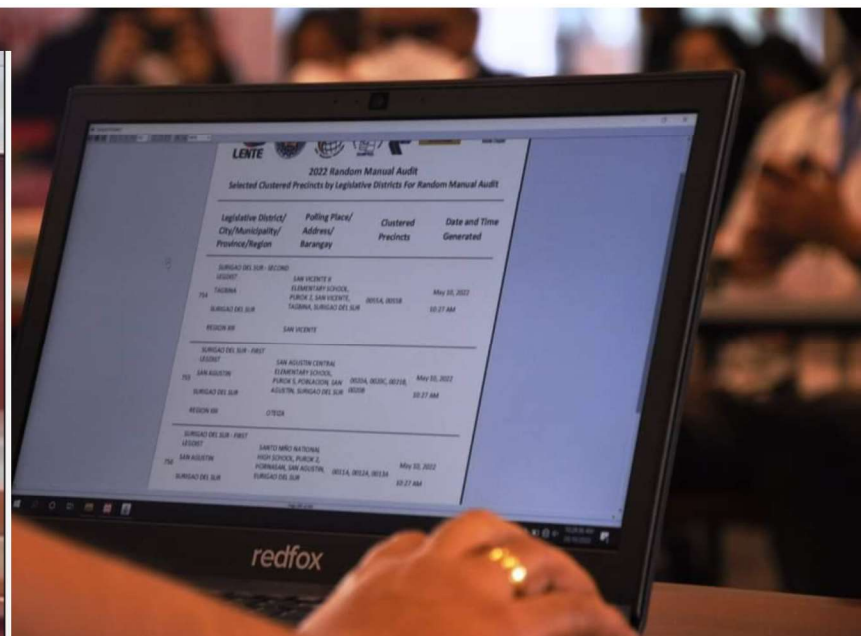
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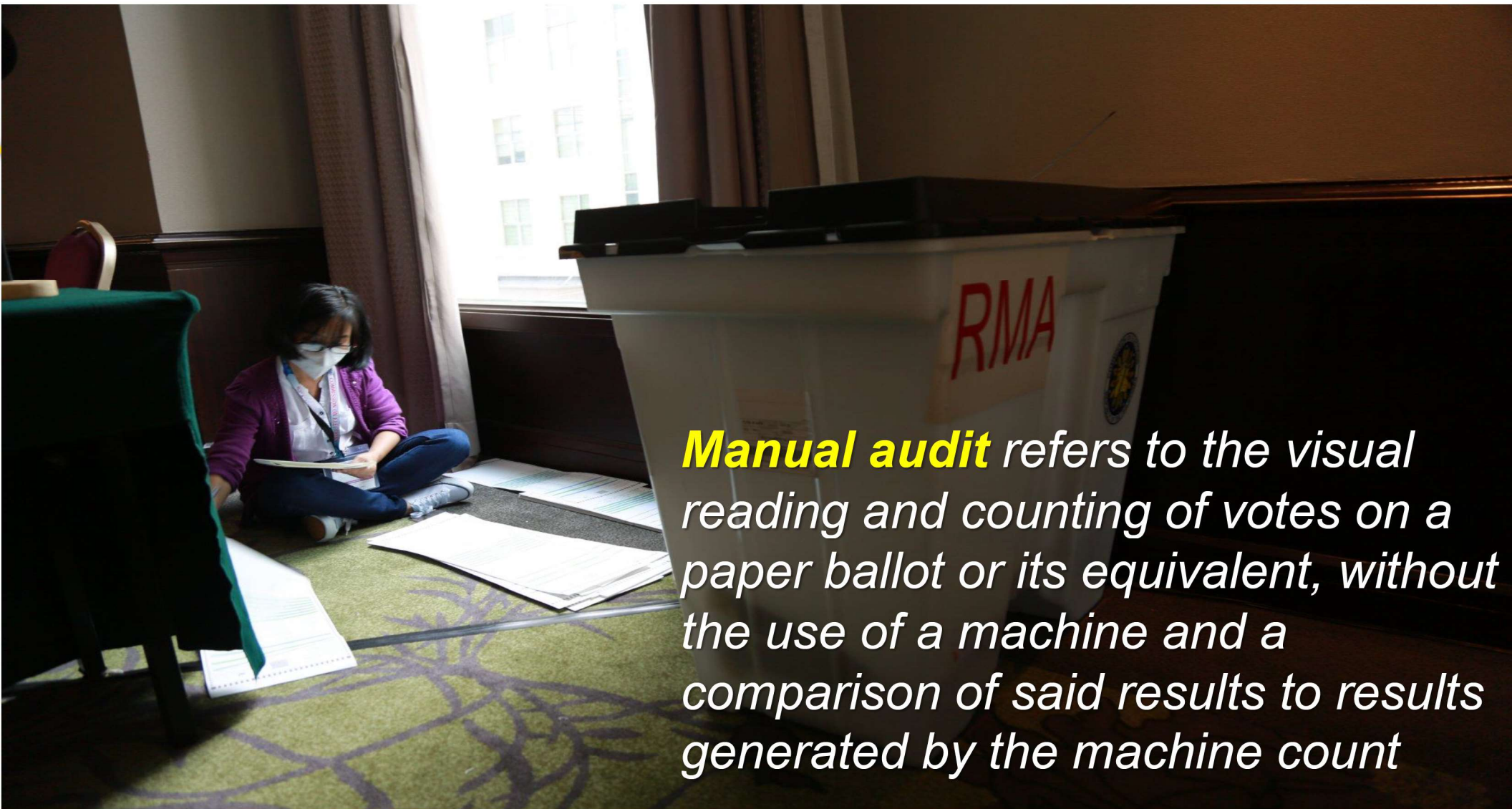
## Selection of the Sample Clustered Precincts

On **10 May 2022**, the Random Manual Audit Committee (RMAC) randomly selected the clustered precincts for the RMA.



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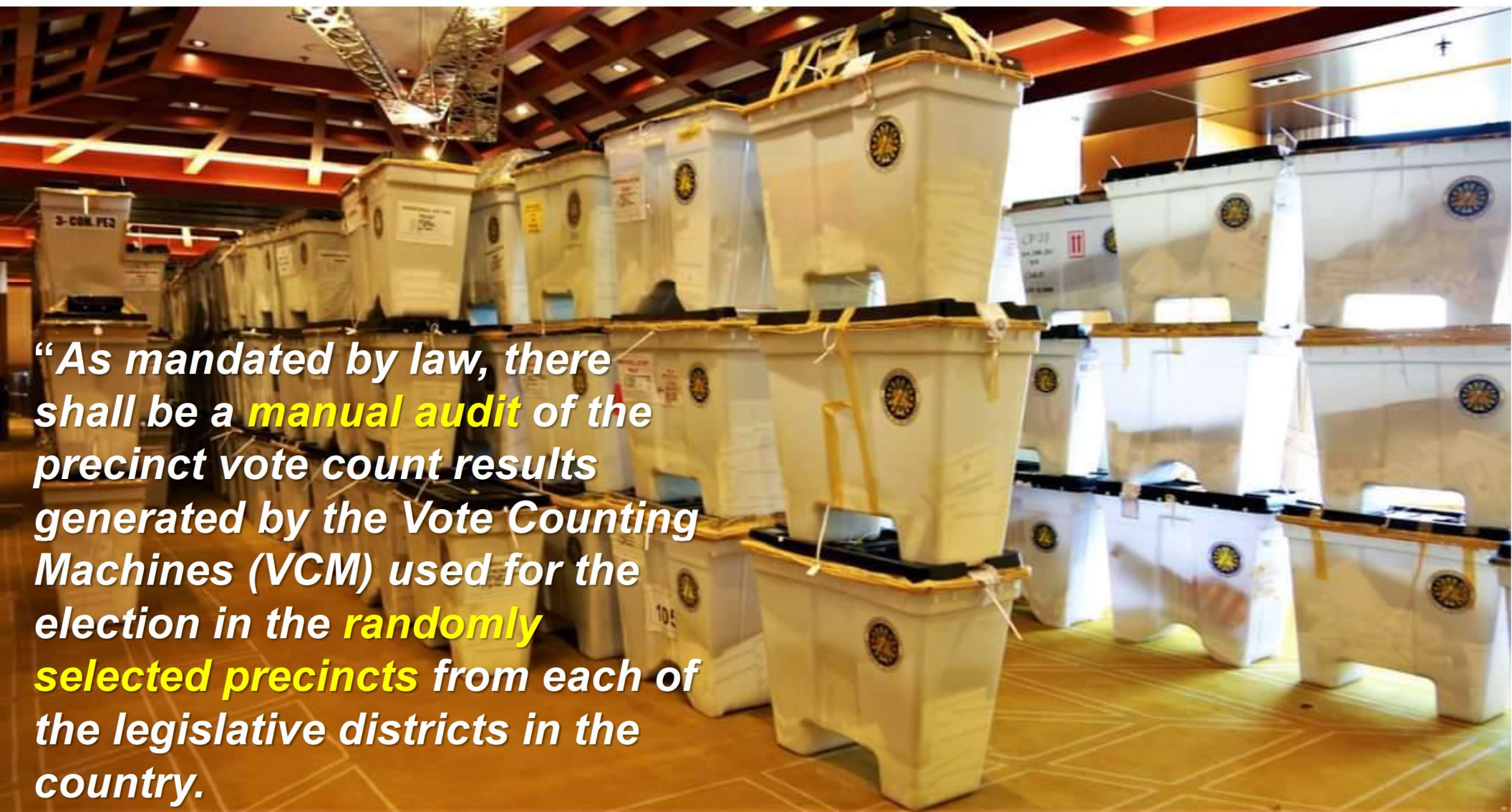




**Manual audit** refers to the visual reading and counting of votes on a paper ballot or its equivalent, without the use of a machine and a comparison of said results to results generated by the machine count

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*“As mandated by law, there shall be a **manual audit** of the precinct vote count results generated by the Vote Counting Machines (VCM) used for the election in the **randomly selected precincts** from each of the legislative districts in the country.*

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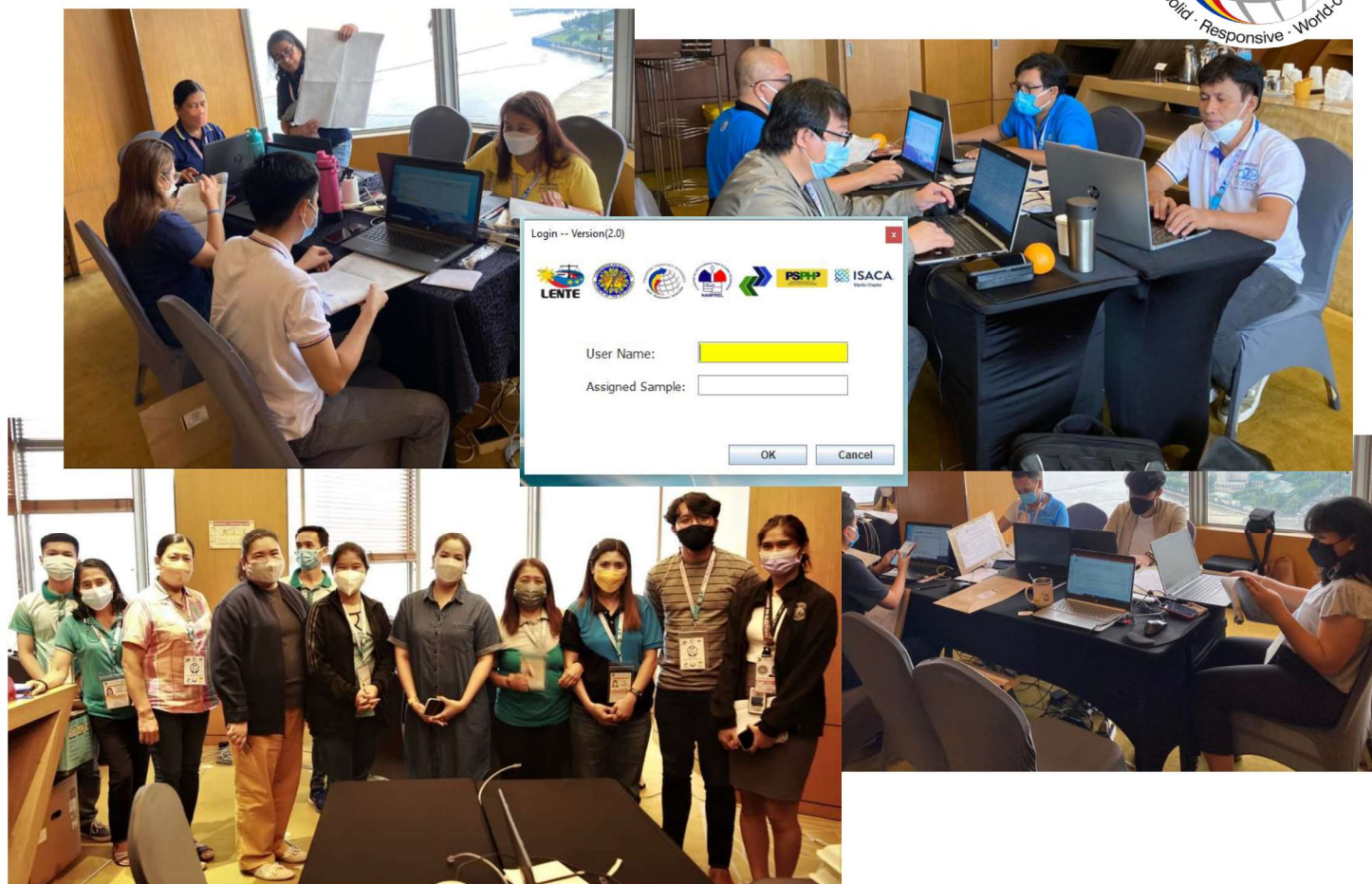


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- Capture RMA data report and compute “variance” and accuracy rate from the sample clustered precincts
- Prepare reports on the resulting “variance” and accuracy rate

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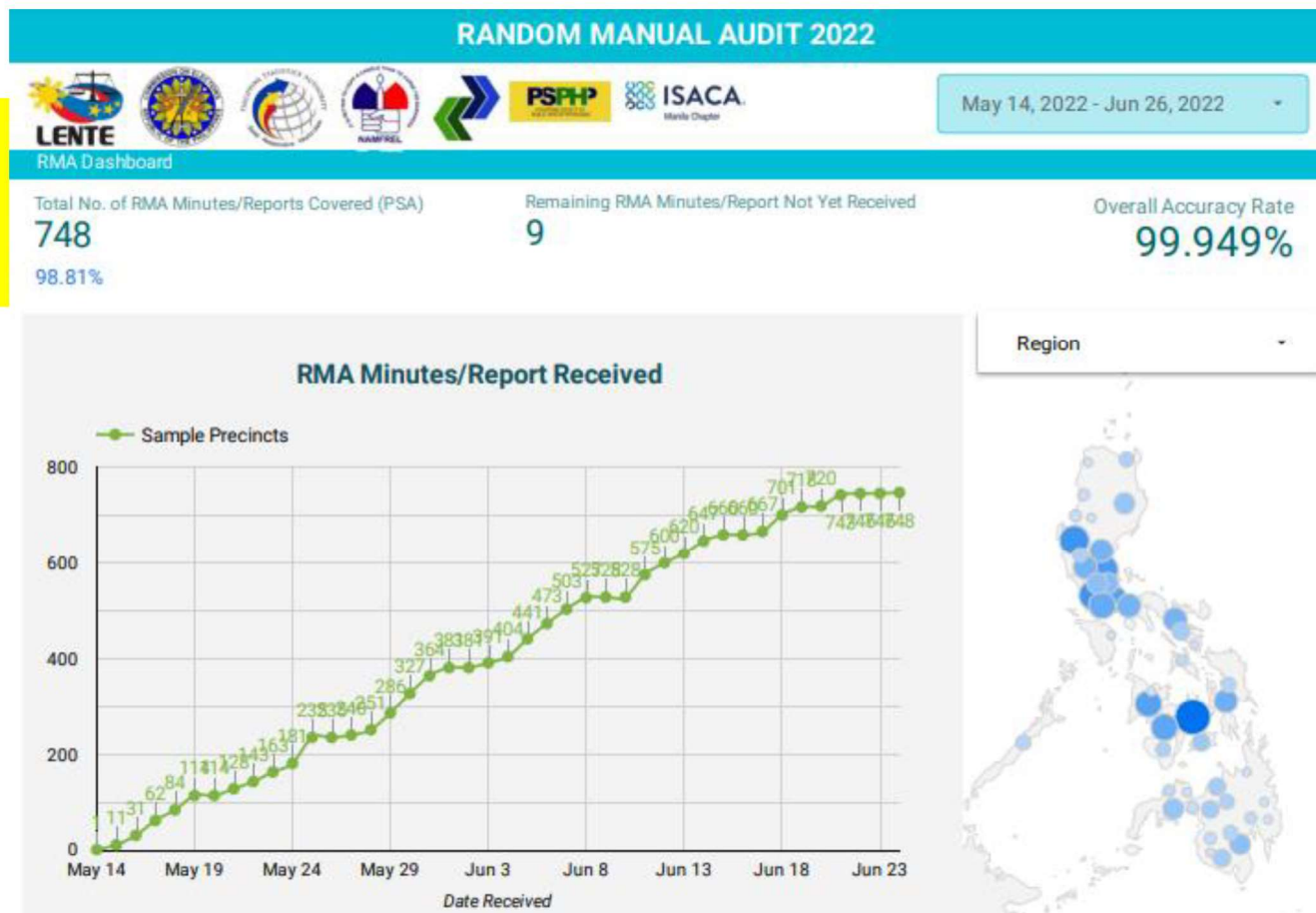
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## 2022 RMA- PSA Team Dashboard



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## Summary Report on Variance and Accuracy Rate

### PHILIPPINES

(As of 24 June 2022 05:00:00 PM)

	RMA Position	Per AES	Per RMA	Variance (Difference between AES and RMA) in absolute value	Accuracy Rate
1.	President	368,991	369,052	107	99.971%
2.	Vice-President	358,911	358,959	110	99.969%
3.	Senator	2,995,172	2,955,302	908	99.969%
4.	Party List	249,588	249,538	374	99.850%
5.	Member, House of Representative	335,870	335,914	96	99.971%
6.	Mayor	358,496	358,521	127	99.965%

Overall Accuracy Rate 99.949%

Based on 748 of 757 or 98.811% of total sample clustered precincts.

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## Distribution of Sample Clustered Precincts with Complete and Validated RMA Reports by Region: Philippines 2022

# Results of the 2022 Random Manual Audit

## Final Report

Prepared by:  
2022 PSA-RMA Working Group  
Philippines Statistics Authority

July 4, 2022

Area	Number of Clustered Precincts			Completion Rate (in percent)
	Population (N)	Sample (n)	Completed and Validated RMA Reports (n')	
Philippines	106,174	757	748	98.81
NCR	10,538	73	73	100.00
CAR	2,153	16	16	100.00
REGION I	6,127	44	44	100.00
REGION II	4,054	30	30	100.00
REGION III	10,993	80	80	100.00
REGION IV-A	13,965	97	96	98.97
MIMAROPA	3,348	25	24	96.00
REGION V	6,656	49	49	100.00
REGION VI	8,570	61	60	98.36
REGION VII	8,129	56	55	98.21
REGION VIII	6,271	44	44	100.00
REGION IX	3,831	26	26	100.00
REGION X	4,986	35	35	100.00
REGION XI	4,834	36	34	94.44
REGION XII	4,074	30	30	100.00
BARMM	4,566	33	30	90.91
Caraga	3,079	22	22	100.00

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## Summary Report on Variance and Accuracy Rate, 2022

RMA Position	Total		Variance (Difference between AES and RMA) in absolute value	Accuracy Rate
	Per AES	Per RMA		
President	368,991	369,052	107	99.9710
Vice-President	359,080	359,128	110	99.9694
Senator	2,955,172	2,955,302	908	99.9693
Party List	249,722	249,672	374	99.8502
Member, House of Representatives	335,685	335,729	96	99.9714
Mayor	359,497	359,522	127	99.9647
Based on 748 of 757 or 98.81% of total clustered precincts			Overall Accuracy Rate	99.9493

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## Probable Reason of Variance

RMA Position	Overvotes	Undervotes	Misplaced Shades	Incomplete Shades		Number of Valid Ballots
				Counted	Not Counted	
President	6,092	10,435	1,268	13,830	2,488	385,029
Vice-President	4,415	20,442	1,250	13,703	2,432	
Senator	26,457	1,500,598	1,384	84,223	11,003	
Party List	11,555	129,365	803	8,136	2,276	
Member, House of Representatives	2,252	46,032	591	11,667	2,401	
Mayor	1,677	22,987	1,724	10,653	3,045	
Totals			7,020	142,212	23,645	

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## Probable Reason of Variance

RMA Position	Probable Reason for the Variance			Remarks			Total Variance	Percent of Variance Probably Explained by:			
	A - Ambiguous mark - Counted by VCM; NOT counted by RMA	B - Ambiguous mark - NOT counted by VCM; counted by RMA	C - Physical Count of valid ballots is NOT equal to ER count of ballots	D - Reconsideration by Chairperson of Appreciation of marking/s	E - Correction of Mathematical error and/or recording error	F - Other remarks		Case A	Case B	Case C	All Cases (A, B, C)
President	17	31	4	9	5	4	107	15.89	28.97	3.74	48.60
Vice-President	13	29	4	7	3	6	110	11.82	26.36	3.64	41.82
Senator	177	208	32	53	17	33	908	19.49	22.91	3.52	45.93
Party List	38	45	5	31	17	8	374	10.16	12.03	1.34	23.53
Member, House of Representatives	9	26	3	6	3	5	96	9.38	27.08	3.13	39.58
Mayor	18	24	2	13	2	2	127	14.17	18.90	1.57	34.65

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## Summary Report on Variance and Accuracy Rate by Presidential Candidate, Philippines, 2022

No.	Position/Name	Per AES	Per RMA	Variance	Negative Variance	Positive Variance	Accuracy Rate
<b>President</b>		<b>368,991</b>	<b>369,052</b>	<b>107</b>	<b>-84</b>	<b>23</b>	<b>99.9710</b>
1	MARCOS, BONGBONG (PFP)	214,515	214,554	49	-44	5	99.9772
2	ROBREDO, LENI (IND)	101,938	101,950	28	-20	8	99.9725
3	PACQUIAO, MANNY PAC-MAN (PROMDI)	26,948	26,954	10	-8	2	99.9629
4	DOMAGOSO, ISKO MORENO (AKSYON)	14,416	14,415	3	-1	2	99.9792
5	LACSON, PING (PDR)	6,090	6,098	8	-8		99.8686
6	MANGONDATA, FAISAL (KTPNAN)	2,478	2,477	1		1	99.9596
7	ABELLA, ERNIE (IND)	828	827	5	-2	3	99.3961
8	GONZALES, NORBERTO (PDSP)	692	692	0			100.0000
9	DE GUZMAN, LEODY (PLM)	665	664	3	-1	2	99.5489
10	MONTEMAYOR, JOSE JR. (DPP)	421	421	0			100.0000

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## Summary Report on Variance and Accuracy Rate by Vice-Presidential Candidate, Philippines, 2022

Vice-President		358,911	358,959	110	-79	31	99.9694
1	DUTERTE, SARA (LAKAS)	219,175	219,201	44	-35	9	99.9799
2	PANGILINAN, KIKO (LP)	63,547	63,555	16	-12	4	99.9748
3	SOTTO, VICENTE TITO (NPC)	57,897	57,908	29	-20	9	99.9499
4	ONG, DOC WILLIE (AKSYON)	13,385	13,389	8	-6	2	99.9402
5	ATIENZA, LITO (PROMDI)	2,046	2,046	2	-1	1	99.9022
6	LOPEZ, MANNY SD (WPP)	1,142	1,141	3	-1	2	99.7373
7	BELLO, WALDEN (PLM)	687	686	1		1	99.8544
8	SERAPIO, CARLOS (KTPNAN)	630	633	5	-4	1	99.2063
9	DAVID, RIZALITO (DPP)	402	400	2		2	99.5025

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## Summary Report on Variance and Accuracy Rate by Senatorial Candidate, Philippines, 2022

Senator		2,955,172	2,955,302	908	-519	389	99.9693
1	PADILLA, ROBIN (PDPLBN)	183,609	183,604	45	-20	25	99.9755
2	LEGARDA, LOREN (NPC)	165,323	165,311	28	-8	20	99.9831
3	TULFO, IDOL RAFFY (IND)	163,423	163,421	32	-15	17	99.9804
4	GATCHALIAN, WIN (NPC)	139,947	139,945	24	-11	13	99.9829
5	ESCUDERO, CHIZ (NPC)	139,761	139,771	26	-18	8	99.9814
6	CAYETANO, ALAN PETER (IND)	132,186	132,187	27	-14	13	99.9796
7	VILLAR, MARK (NP)	131,804	131,804	28	-14	14	99.9788
8	VILLANUEVA, JOEL TESDAMAN (IND)	127,153	127,154	37	-19	18	99.9709
9	ZUBIRI, MIGZ (IND)	125,663	125,661	28	-13	15	99.9777
10	EJERCITO, JV ESTRADA (NPC)	108,613	108,626	33	-23	10	99.9696
11	HONTIVEROS, RISA (AKBAYAN)	106,852	106,854	36	-19	17	99.9663
12	ESTRADA, JINGGOY (PMP)	104,898	104,904	30	-18	12	99.9714
13	BINAY, JOJO (UNA)	91,660	91,663	15	-9	6	99.9836
14	BAUTISTA, HERBERT BIS-TEK (NPC)	88,181	88,185	14	-9	5	99.9841
15	TEODORO, GIBO (PRP)	84,487	84,496	21	-15	6	99.9751
16	ELEAZAR, GEN. GUILLERMO (PDR)	75,605	75,616	19	-15	4	99.9749
17	ROQUE, HARRY SPOX (PRP)	74,380	74,377	21	-9	12	99.9718
18	HONASAN, GRINGO (IND)	72,335	72,351	30	-23	7	99.9585

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## Thank you!



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