



INTER-REGIONAL SEMINAR ON SMALLPOX ERADICATION

INDEXED

Lagos, Nigeria, 13-20 May 1969

COUNTRY REPORT



1.0 DEMOGRAPHIC DATA

1.1 Estimated population (July 1969)

Age	
0-4	1 138 500
5-14	1 551 000
15-21	693 000
21+	2 117 500
TOTAL	5 500 000

1.2 Population by geographic subdivision (Table 1)

1.3 Population density by geographic subdivision (Table 1)

1.4 Population density by geographic subdivision (Figure 1)

2.0 SMALLPOX INCIDENCE AND VACCINATION DATA

2.1 Smallpox cases by month and geographic subdivision - Jan. 1968 - Feb. 1969 (Table 2)

2.2 Location of smallpox outbreaks.

Oct. 68 - Dec. 68 (Figure 2)

Jan. 69 - Feb. 69 (Figure 3)

2.3 Incidence rates per 100 000 population by geographic subdivision and by quarter.

Jan. 68 - Mar. 68 (Figure 4)

Apr. 68 - Jun. 68 (Figure 5)

Jul. 68 - Sep. 68 (Figure 6)

Oct. 68 - Dec. 68 (Figure 7)

Jan. 69 - Feb. 69 (Figure 8)

2.4 Monthly distribution of smallpox cases by age and sex - Jan. 1969 - Feb. 1969
(Table 3)

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2.5 Smallpox vaccinations performed by quarter and geographic subdivision - January 1968 through February 1969 (Table 4)

2.6 Areas vaccinated since inception of the programme (Figure 9)

2.7 Smallpox vaccination targets by geographic subdivision - July 1969 through June 1970 (Table 5)

2.8 Method for recording of vaccinations:

Tally sheet: Yes No

Other registry system (specify) _____

2.9 Youngest age for beginning smallpox vaccination:

Birth 6 months Other _____

3.0 MEASLES INCIDENCE AND VACCINATION DATA (for countries engaged in measles vaccination programmes)

3.1 Reported measles cases by month and geographic subdivision (Table 6)

3.2 Measles immunizations by quarter and geographic subdivision (Table 7)

3.3 Areas vaccinated against measles since inception of the programme and areas where maintenance vaccination programmes have been initiated (Figure 10)

4.0 NUMBER OF PERSONNEL ENGAGED IN VACCINATION PROGRAMME

4.1 Vaccinators:	Regular teams	<u>90</u>	(26 teams)
	Maintenance teams	<u>2</u>	(1 team)
	Other (Specify)	<u>0</u>	
	TOTAL	<u>92</u>	
	Other field staff, including recorders, drivers, etc.	<u>136</u>	
	Supervisory personnel (paramedical)	<u>26</u>	

4.2 Number of vaccinators directly supervised by one supervisor 92

4.3 Average number of vaccinations performed daily by each team:

Regular teams	<u>700</u>
Maintenance teams	<u>300</u>
Other (specify)	<u>-</u>

5.0 PROGRAMME EXECUTION

5.1 Supervision

5.1.1 Proportion of time spent in field by supervisory staff and technical advisory staff checking directly on the work of vaccinators and assessors and lower level supervisors:

By country staff reviewing work of - Vaccination team: } 10 days per mo.
Other levels: } _____ days per mo.

By advisory staff reviewing work of - Vaccination team: } 10 days per mo.
Other levels: } _____ days per mo.

5.1.2 Measures taken when vaccinator or assessor performance is unsatisfactory
Observation and suspension

5.2 Assessment

5.2.1 Vaccine "take rates"

Proportion of primary vaccinations in 0-4 year old children which are checked after seven days to determine takes 10%

Steps taken when the proportion of successful primary vaccination falls below 95% Revaccination

5.2.2 Vaccination coverage:

Number of vaccinations performed in each area are compared with the population estimate for the area (e.g. village register, census, etc.)

Yes No

5.2.3 Assessment of coverage:

An assessment of coverage is regularly performed in a sample of the population

Yes No

Level of coverage in the 0-4 and 5-14 year age group which is considered acceptable

85% 80% Other _____

Proportion of assessment surveys which fall below the level noted above.
50 %

Steps taken if the coverage is not acceptable (i.e. revaccinate the area etc.) Revaccination

Changes which have been made in the programme as a direct result of assessment None

5.3 Surveillance

5.3.1 Notification of smallpox cases:

Number of sites which could report smallpox cases (e.g. hospitals, health centres, health posts, dispensaries) _____

Frequency of reporting:

Immediate Weekly Other _____

Number of reports: Expected in 1968 _____

Received in 1968 87

% received _____

Negative reporting is generally practised: Yes No

Other specialized programmes which report cases

Measles - meningitis

Other persons or groups who have been requested to notify cases

Customary chiefs

Proportion of cases for which age, sex, and vaccination status are recorded

70 %

Best estimate of the percentage of cases which are reported:

	January 1967	February 1969
More than 90%	_____	<u>X</u>
75-89%	_____	_____
50-74%	<u>X</u>	_____
Less than 50%	_____	_____

5.3.2 Case investigation and containment measures:

Number of case investigation/containment ('fire-fighting') teams which have been established 2

These teams are: Centralized Decentralized

If decentralized, to what extent _____

Proportion of cases, since October 1968, in which containment action was taken within 48 hours after notification 100 %

Proportion of outbreaks, since October 1968, routinely investigated to determine the origin of infection 100 %

Of the investigations noted above, the percentage of outbreaks where the origin was not ascertained 0 %

6.0 COMMODITIES

6.1 Vaccine use:

Year	Col. 1 Number of Doses Recd.	Col. 2 Number of Doses in Inventory	Col. 3 Number of Doses Used (Col.1-Col.2)	Col. 4 Number of Vacc. performed	Reasons for Difference between Col.3 and Col.4
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Smallpox
vaccine

1967	1 818 000	-	1 818 000	1 815 311	
1968	2 140 000	-	2 140 000	1 983 491	
1969*	385 000	-		249 770	

Measles
vaccine

1967	367 000	-	367 000	292 568	
1968	330 000	-	330 000	300 415	
1969*	142 000	-		39 252	

* January and February only

6.2 Equipment:

<u>Item</u>	<u>Number Supplied</u> *	<u>Number in Operation</u>	<u>Comment</u>
Trucks	12	11	
Ped-o-Jets	107	104	
Refrigerators	38	31	
Motorbikes	-	-	

* Since inception of the programme.

Has a warehouse with rotating inventory system for spare parts been established? Yes No

TABLEAU 1. DONNEES DEMOGRAPHIQUES PAR DIVISION GEOGRAPHIQUE
(Utiliser les divisions indiquées par les cartes)

TABLE 1. DEMOGRAPHIC DATA BY GEOGRAPHIC SUBDIVISION
(Use Subdivisions as shown on Country Maps)

Division géographique	Population approximative en 1967	Superficie (en km ²)	Densité de population au km ²
Geographic Subdivisions	Est. 1967 Population	Area (Square kms)	Population density per square km
Dschang	157 028	1 357	115.7
Est	265 872	108 520	2.4
Yaounde	538 536	29 764	18.1
Foumban	135 035	7 470	18.1
Douala	355 105	10 085	35.2
Nkongsamba	257 768	9 986	25.8
Fout Foureaux	100 483	11 763	8.5
Bafia	144 911	34 611	4.2
Maroua	505 745	15 036	33.6
Mokolo	304 190	7 433	40.9
Ngaoundere	152 146	30 803	4.9
Garoua	301 975	65 234	4.6
Sangmelima	91 390	19 754	4.6
Eseka	71 237	5 926	12.0
Ebolowa	115 469	15 915	7.3
Kribi	59 865	11 714	5.1
Bangante	85 432	1 517	56.3
Tibati	84 044	30 803	2.7
Bafoussam	310 461	2 322	133.7
Bafang	90 438	1 007	89.8
Kumba	322 000	14 200	22.7
Mamfe	119 000	10 725	11.1
Bamenda	378 000	6 050	62.5
Wum	207 000	10 787	19.2
Total	5 153 130	462 782	

TABLEAU 2. CAS DE VARIOLE PAR MOIS ET PAR DIVISION GEOGRAPHIQUE (JUSQU'A FEVRIER 1969)
TABLE 2. SMALLPOX CASES BY MONTH AND GEOGRAPHIC SUBDIVISION (TO FEBRUARY 1969)

Division géographique	Nombre de cas pas mois/Number of cases by month														
	1968													1969	
Geographic Subdivisions	J	F	M	A	M	J	J	A	S	O	N	D	Total	J	F
Semaines/Weeks	1-5	6-9	10-13	14-17	18-22	23-26	27-31	32-35	36-39	40-44	45-48	49-52		1-5	6-9
Maroua												2	2	5	
Mokolo		12	13	6	2	2						1	36	6	1
Garoua				49									49		1

TABLEAU 4. VACCINATIONS ANTIVARIOLIQUES EFFECTUEES, PAR DIVISION GEOGRAPHIQUE
(Divisions indiquées par les cartes)

TABLE 4. SMALLPOX VACCINATIONS PERFORMED BY GEOGRAPHIC SUBDIVISIONS
(those shown on country maps)

Division géographique Geographic Subdivisions	1967	Total 1968		J-F 1969	Total général* Grand total*
Dschang	91		54 708	2	54 801
Est	87 256		98 585	5 373	191 214
Yaounde	107 169		303 483	33 678	444 330
Foumban	30 466		108 386	10 425	149 277
Douala	34 663		245 258	14 688	294 609
Nknongsamba	90 398		71 606	23 399	185 403
Fout Foureau	50 781		27 134	5 137	83 052
Bafia	34 967		22 672	0	57 639
Maroua	179 230		170 108	33 903	383 241
Mokola	168 215		146 415	20 866	335 496
Ngaoundere	47 027		47 809	43 625	138 461
Garoua	72 308		100 390	17 176	189 874
Sangmelima	35 272		56 068	3 914	95 254
Eseka	22 284		11 048	12 618	45 950
Ebolowa	50 520		45 515	40	96 075
Kribi	21 288		1 875	0	23 163
Bangante	20 260		39 605	0	59 865
Tibati	-		57 463	0	57 463
Bafoussam	154 459		153 019	0	307 478
Bafang	32 855		50 057	0	82 912
Kumba	142 738		50 182	10 184	203 104
Mamfe	24 746		29 454	4 279	58 479
Bamenda	181 837		62 239	6 469	250 645
Wum, Nkambe	226 381		30 412	8 476	265 269
Total	1 815 311		1 983 491		4 053 054

* Englobant le total depuis la mise en oeuvre du programme.

* Includes the total since the inception of the programme.

TABLEAU 5. OBJECTIFS DE LA VACCINATION PAR DIVISION GEOGRAPHIQUE,
DE JUILLET 1969 A JUIN 1970

TABLE 5. VACCINATION TARGETS BY GEOGRAPHIC SUBDIVISIONS
JULY 1969-JUNE 1970

Division géographique	Nombre de vaccinations prévues/Number of vaccinations planned			
	1969		1970	
	Juillet-septembre July-September	Octobre-décembre October-December	Janvier-mars January-March	Avril-juin April-June
Dschang	20 000	20 000	20 000	20 000
Est	26 250	26 250	26 250	26 250
Yaounde	67 500	67 500	67 500	67 500
Foumban	15 000	15 000	15 000	15 000
Douala	25 000	25 000	25 000	25 000
Nkongsamba	20 000	20 000	20 000	20 000
Fout Foureau	16 250	16 250	16 250	16 250
Bafia	18 750	18 750	18 750	18 750
Maroua	35 000	35 000	35 000	35 000
Mokolo	28 750	28 750	28 750	28 750
Ngaoundere	16 250	16 250	16 250	16 250
Garoua	19 500	19 500	19 500	19 500
Sangmelima	11 000	11 000	11 000	11 000
Eseka	9 500	9 500	9 500	9 500
Ebolowa	18 000	18 000	18 000	18 000
Kribi	6 250	6 250	6 250	6 250
Bangante	7 500	7 500	7 500	7 500
Tibati	5 000	5 000	5 000	5 000
Bafoussam	25 000	25 000	25 000	25 000
Bafang	10 000	10 000	10 000	10 000
Kumba	20 000	20 000	20 000	20 000
Mamfe	11 250	11 250	11 250	11 250
Bamenda	25 000	25 000	25 000	25 000
Wum	18 750	18 750	18 750	18 750
Total	475 500	475 500	475 500	475 500

TABLEAU 6. CAS DE ROUGEOLE DECLARES DE JANVIER 1968 JUSQU'A FEVRIER 1969 COMPRIS
 TABLE 6. REPORTED MEASLES CASES JANUARY 1968 (THROUGH FEBRUARY 1969)

Division géographique	Nombre de cas par mois/Number of cases by month														
	1968													1969	
Geographic Subdivisions	J	F	M	A	M	J	J	A	S	O	N	D	Total	J	F
Semaines/Weeks	1-5	6-9	10-13	14-17	18-22	23-26	27-31	32-35	36-39	40-44	45-48	49-52		1-5	6-9
Dschang	0	58	160	357	354	250	225	116	152	161	95	14		9	11
Est	3	18	6	3	3	51	18	15	9	15	7	0		13	8
Yaounde	91	23	59	102	298	24	362	53	33	438	22	7		37	3
Foumban	6	0	18	4	52	35	85	71	66	58	6	2		5	6
Douala	5	76	68	148	180	36	9	42	18	32	38	63		142	99
Nknongsamba	4	12	72	83	138	160	92	70	21	24	13	8		31	16
Fout Foureau	0	2	1	1	0	0	0	0	0	0	1	0		0	0
Bafia	0	0	9	24	19	57	136	65	1	5	56	5		4	2
Maroua	5	2	2	5	14	0	6	7	3	9	5	5		4	0
Mokolo	3	3	3	31	49	33	7	14	180	55	34	9		5	4
Ngaoundere	2	0	2	4	1	1	5	3	3	0	6	0		1	11
Garoua	0	-	-	-	-	-	-	0	0	0	0	13		141	441
Sangmelima	8	5	4	12	7	3	6	17	14	16	17	23		3	9
Eseka	3	4	13	8	18	13	29	15	18	2	5	-		2	20
Ebolowa	20	7	22	42	57	103	67	73	51	26	24	38		14	57
Kribi	0	-	0	-	34	100	12	18	8	16	0	-		15	20

TABLEAU 6. CAS DE ROUGEOLE DECLARES DE JANVIER 1968 JUSQU'A FEVRIER 1969 COMPRIS
TABLE 6. REPORTED MEASLES CASES JANUARY 1968 (THROUGH FEBRUARY 1969)

Cont.

Division géographique	Nombre de cas par mois/Number of cases by month														
	1968													1969	
Geographic Subdivisions	J	F	M	A	M	J	J	A	S	O	N	D	Total	J	F
Semaines/Weeks	1-5	6-9	10-13	14-17	18-22	23-26	27-31	32-35	36-39	40-44	45-48	49-52		1-5	6-9
Bagante	41	44	126	50	25	50	15	11	6	0	0	0		0	11
Tibati	0	0	0	0	0	0	0	138	64	67	16	77		38	50
Bafoussam	30	31	15		38	903	16	12	8	12	10	62		0	10
Bafang	12	32	62	78	131	138	128	86	111	31	29	83		129	73
Kumba	39	212	307	3	6	182	120	149	152	163	194	17			
Mamfe	18	19	18	28	18	13	4	4	1	1	3	6		5	33
Bamenda	22	0	-	48	127	70	45	51	75	7	5	4			109
Wum	1	0	12	19	12	9	13	0	3	6	3	10		167	254
Total	313	548	979	1 050	1 581	2 231	1 400	1 030	997	1 144	589	446	12 308	765	1 247

TABLEAU 7. VACCINATIONS ANTIROUGEOLEUSES EFFECTUEES, PAR DIVISION GEOGRAPHIQUE
(Divisions indiquées par les cartes)

TABLE 7. MEASLES VACCINATIONS PERFORMED BY GEOGRAPHIC SUBDIVISIONS
(those shown on country maps)





Division géographique	Total 1968			Janvier-février 1969	Total général*
Geographic Subdivisions					Grand total*
Dschang			16 641	351	16 992
Est			10 284	449	20 043
Yaounde			20 674	2 164	36 859
Foumban			18 169	1 106	24 314
Douala			27 946	9 991	48 206
Nkongsamba			9 662	2 142	18 267
Fout Foureau			6 932	132	7 064
Bafia			2 147	637	3 991
Maroua			21 712	2 091	32 560
Mokolo			22 817	2 770	33 552
Ngaoundere			5 107	4 425	12 038
Garoua			7 787	1 658	13 198
Santmelima			14 657	479	18 310
Eseka				698	
Ebolowa			4 686	33	12 677
Kribi			3 742	0	3 981
Bagante			4 765	0	28 296
Tibati			8 172	0	8 172
Bafoussam			32 226	0	57 639
Bafang			8 623	0	9 256
Kumba			14 789		50 745 +
Mamfe			9 444		14 689 +
Bamenda			23 841		66 609 +
Wum			10 149		71 726 +
Total					

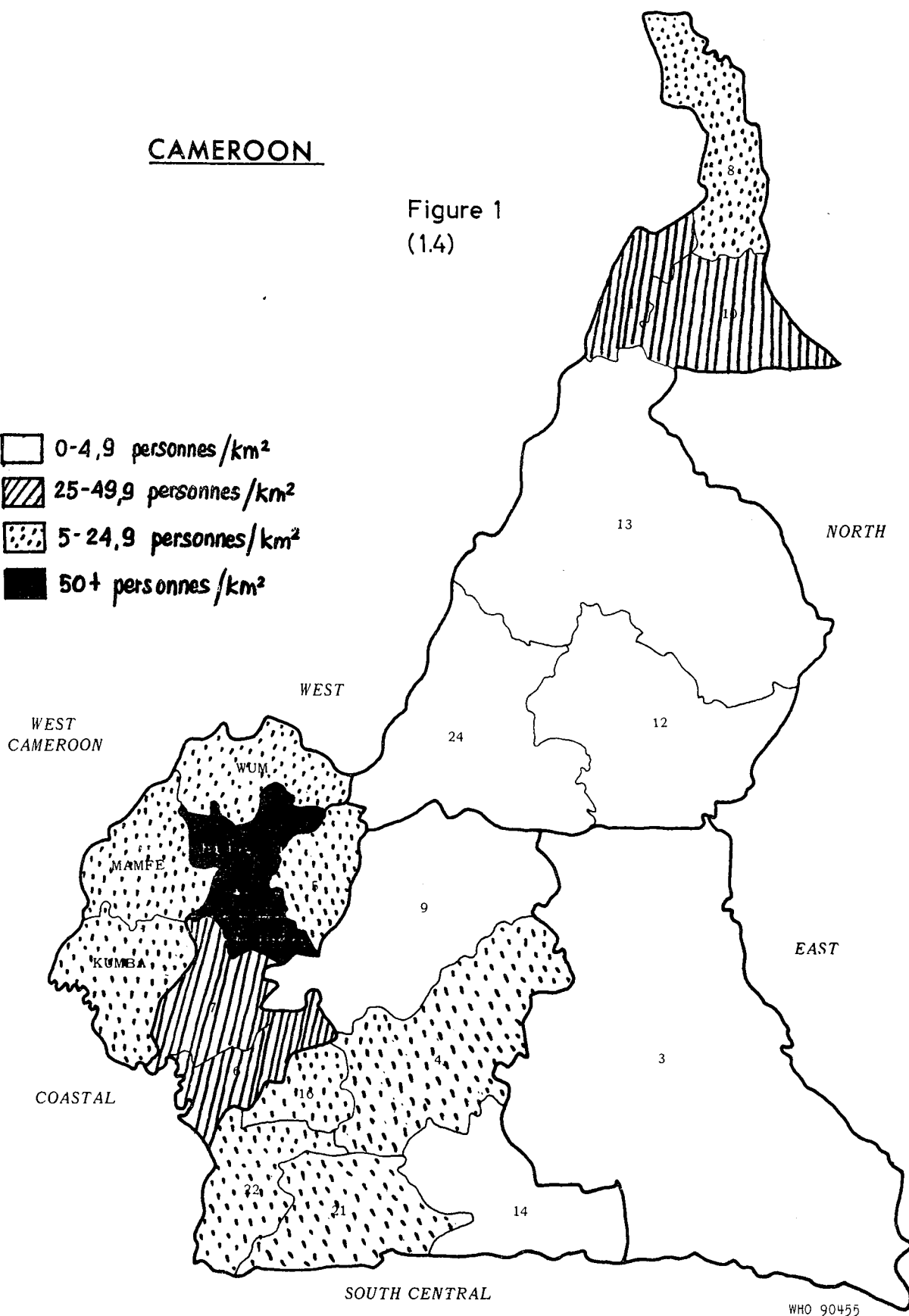
* Englobant le total depuis la mise en oeuvre du programme.

* Includes the total since the inception of the programme.

CAMEROON

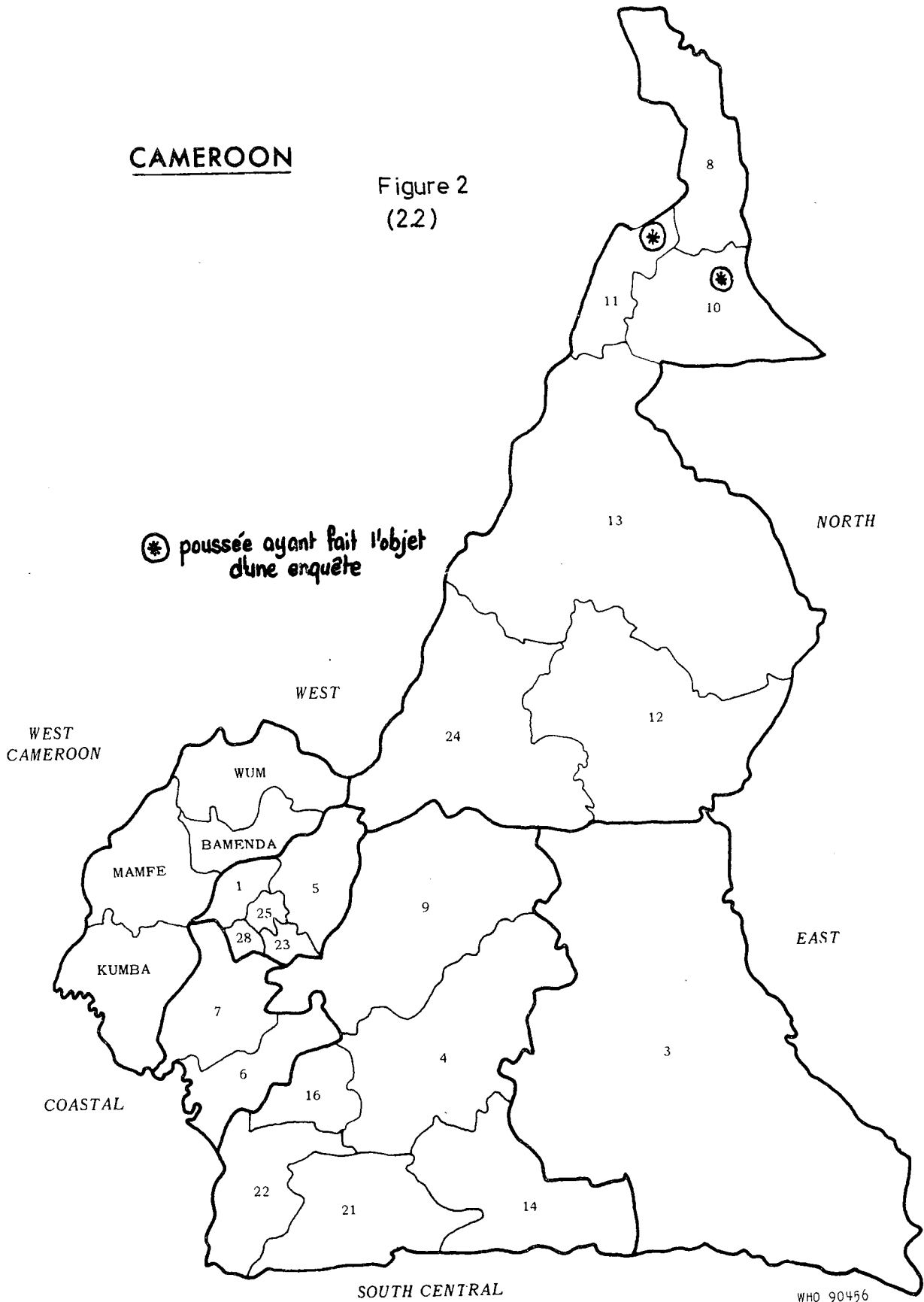
Figure 1
(1.4)

-  0-4,9 personnes/km²
-  25-49,9 personnes/km²
-  5-24,9 personnes/km²
-  50+ personnes/km²



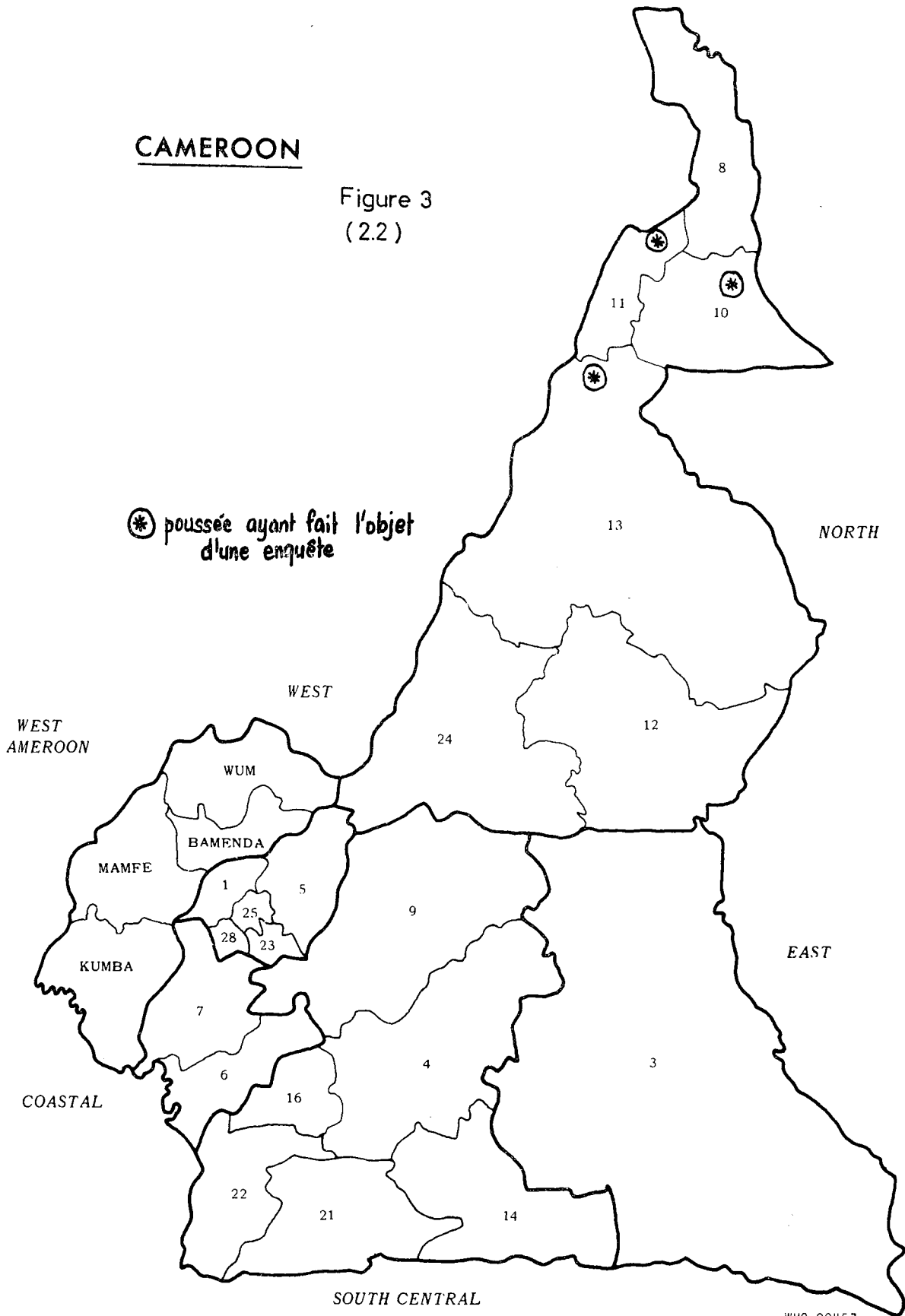
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Figure 2
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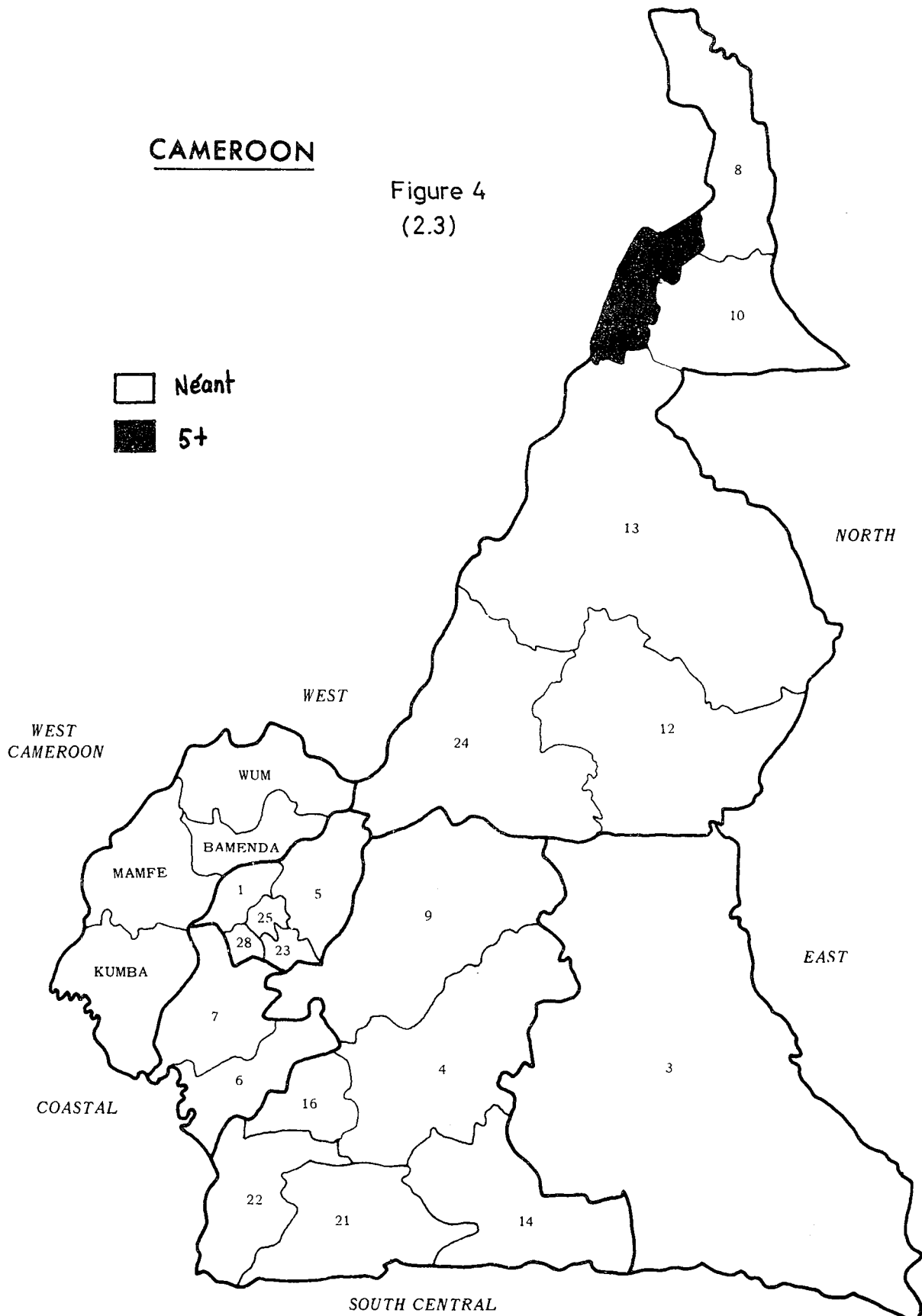
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Figure 3
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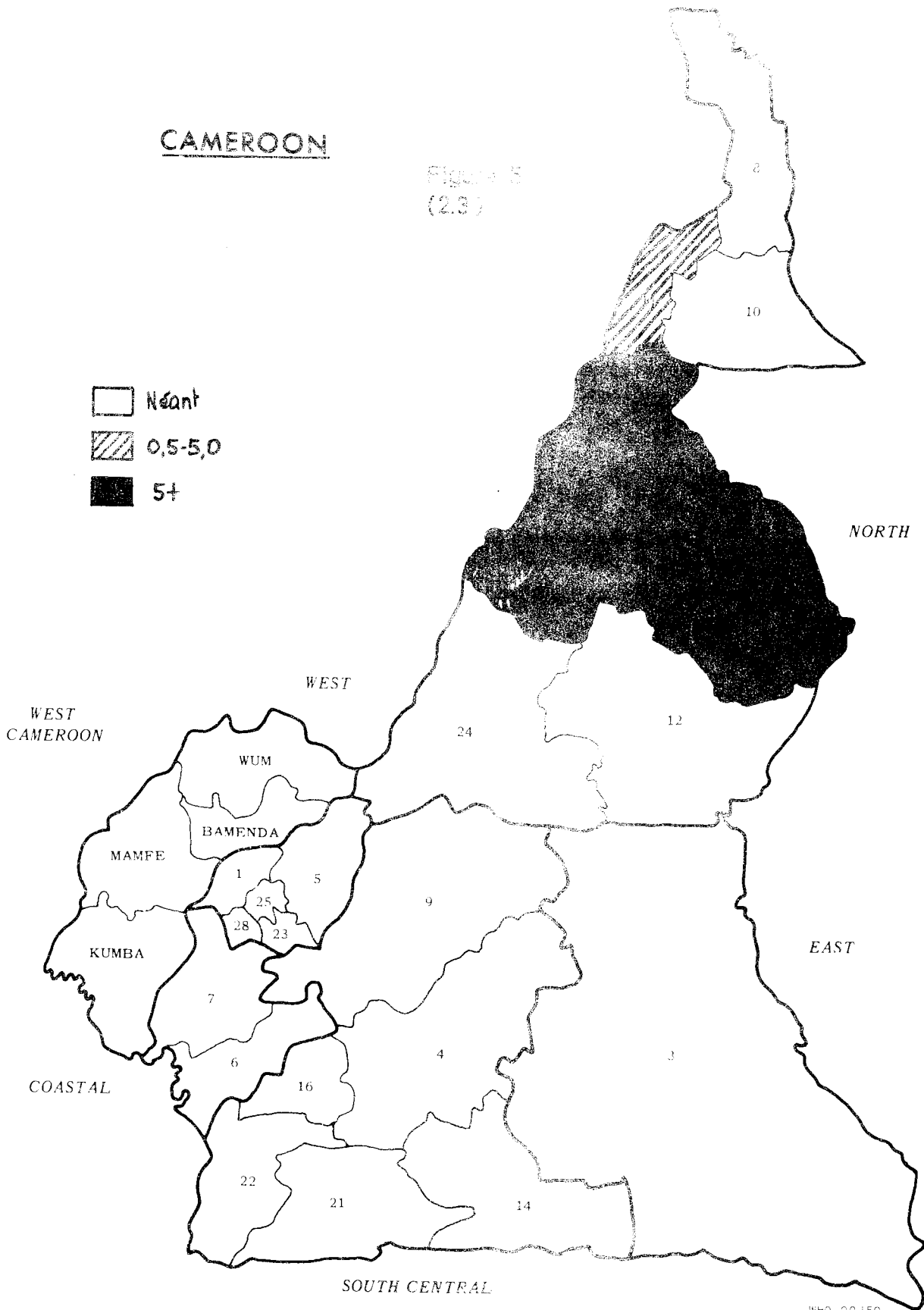
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Figure 4
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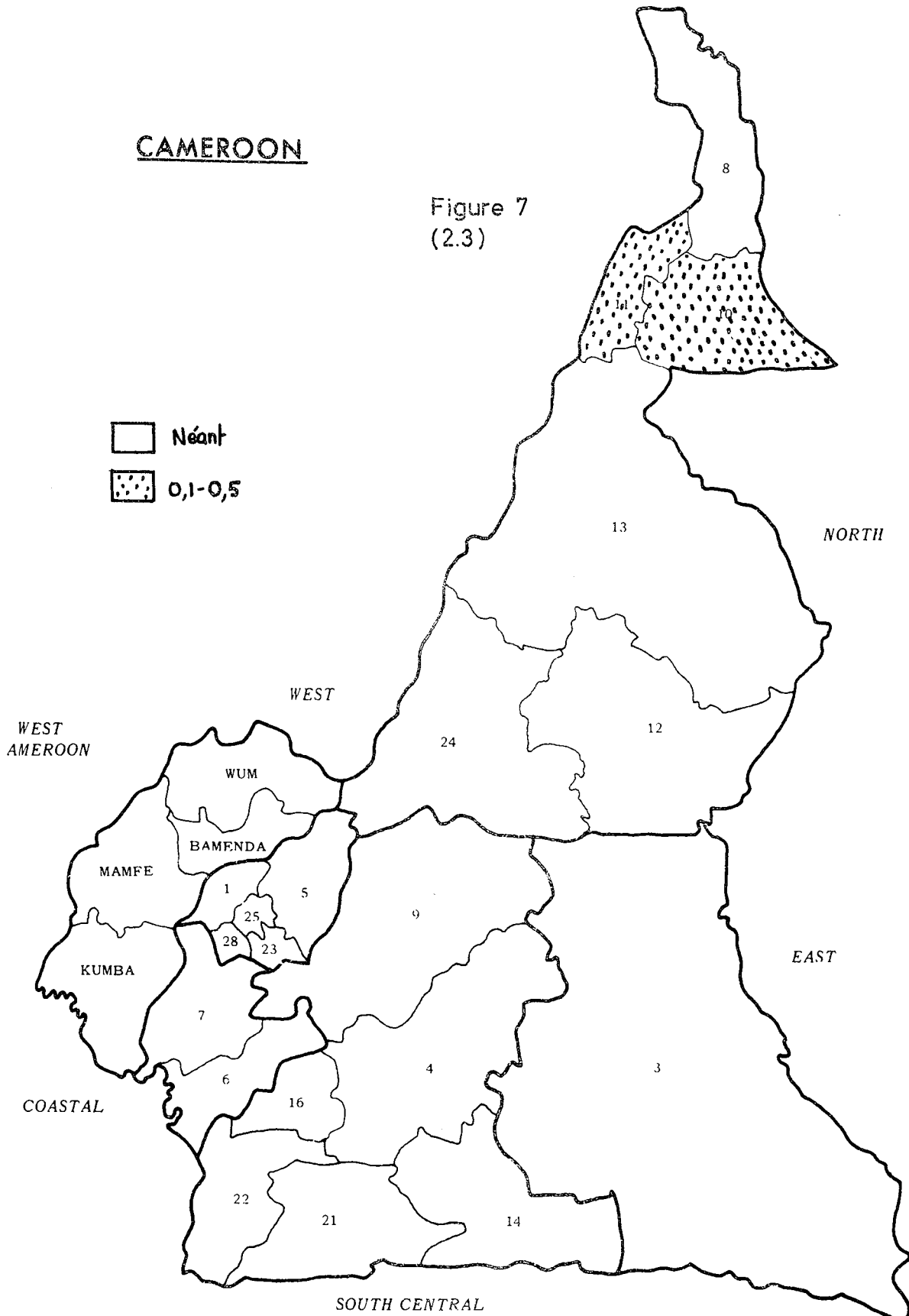
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Figure 5
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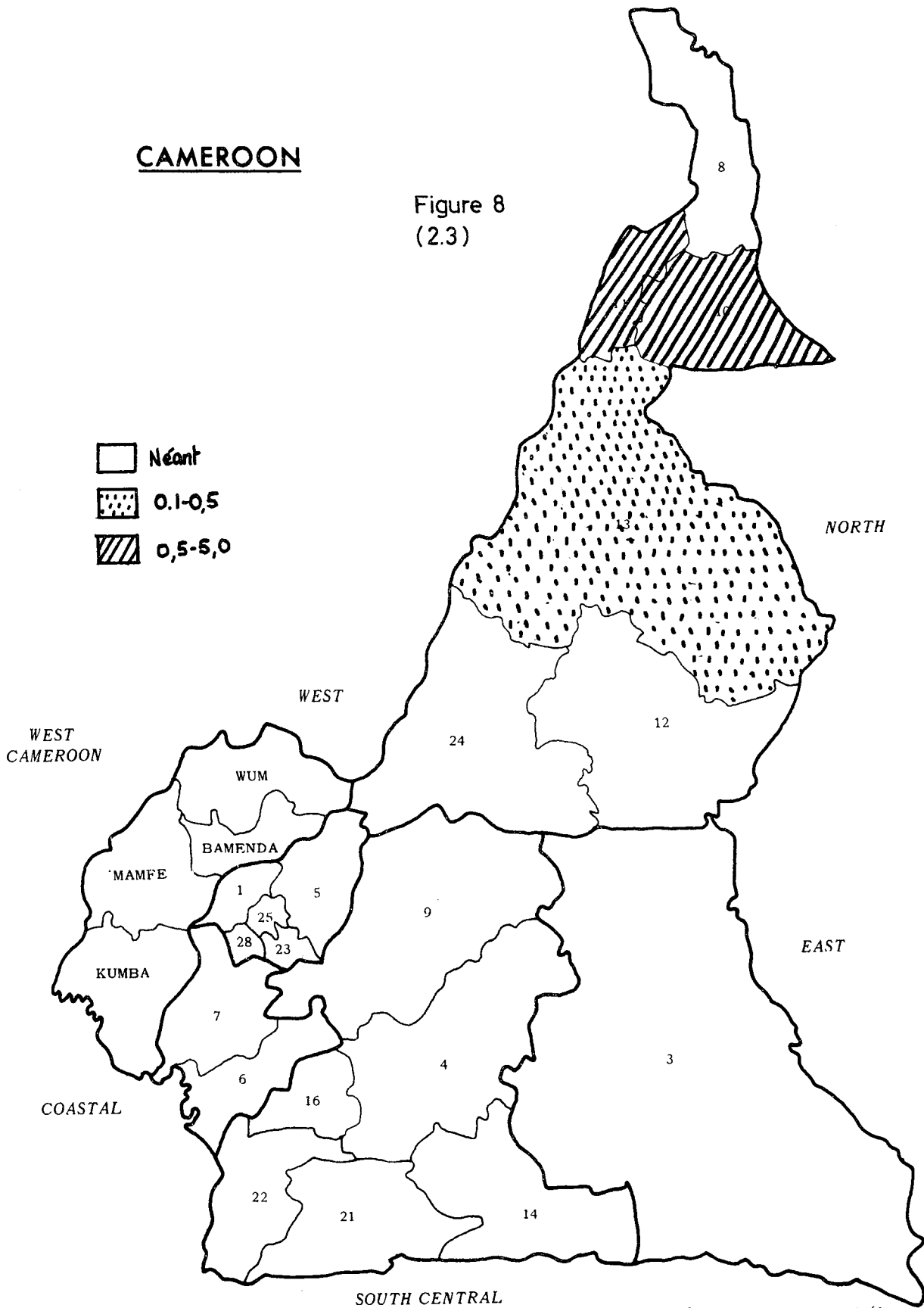
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Figure 7
(2.3)



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Figure 8
(2.3)



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Figure 9
(2.6)

