Appendix A. Technical Description of the Survey

The University of Pittsburgh, by demand of USAID (Colombia) performed a thorough research of Colombia's main public opinion and market research companies. Because of its 20-year experience as well as its leadership in complex, country-wide operations, the Centro Nacional de Consultoría (CNC) was chosen to develop the sampling process, field interviewing, data entry, verification and processing.

Sample Design

Universe

The survey universe has National coverage of all adults living in the country's six regions: Bogotá, Atlantic, Pacific, Central, Oriental regions and the former Territorios Nacionales. The universe also comprehended all the adults in both rural and urban areas.

The Universe was divided in two sectors: one with cities with more than 300.000 inhabitants and another with cities with less than 300.000 inhabitants.

Population

The sampling was circumscribed to all non institutional civil population: this means that people living in hospitals, orphanages, schools and military bases were excluded. Private households in these areas were contemplated.

Final Selection Unit

Since the questionnaire included questions not limited to the respondent but also to other household members, the observation statistical unit chosen was the household. The respondent had to live in only one household.

Because every household belongs to a housing unit, sometimes shared by more than one household, with relative stability over time, each housing unit was chosen as the final selection unit.

Sampling Method

We chose the probabilistic, stratified, multistage method, with randomized selection of units in each stage. First, the sample is stratified by town size (cities with less and more than 300.000), then by regions and areas.

It is multistage because within each urban area it starts with primary sampling units (sectors), followed by Secondary Units (sections), then Third Units (blocks) and Final Sampling Units (housing conglomerates) of 6 to 8 in urban areas and 10 to 12 in rural areas. In each housing unit the interviewer selected only one household as Observation Unit.

The respondent was chosen following gender and age quotas. Thus, in each block the interviewer had to include at least one man and one women from each of these age brackets:

18 to 27 years
28 to 40 years
More than 40 years

Each interviewer was assigned one specific block. Once in the area, each interviewer listed the first 20 housing units he/she encountered. He/she was instructed to apply a maximum of 8 interviews out of the 20 housing units per block, balancing out the age and gender quotas.

The method selection was chosen according to the following considerations:

a) We needed representative samples in the following levels:

- Nationally

First Stage Strata:

Cities with more than 300.000 inhabitants
Cities with less than 300.000 inhabitants

Second Stage Strata:

Bogota
Atlantic Region
Pacific Region
Oriental Region
Central Region
Former Territorios Nacionales

Third Stage Strata:

Urban Area
Rural Area

Study Domains:

Cities with more than 300.000 inhabitants (obliged selection)
Cities with less than 300.000 inhabitants

b) For each stage, we calculated margins of error that corresponded to minimum quality standards

c) We pursuit to facilitate operability of interviewing

d) We looked for usage of the best and more updated sampling frame available for each municipality (population census, cartography, updated housing lists, among others)

Sampling Frame

The sampling frame is constituted by the updated cartographic inventory and housing lists obtained during the 1993 Population Census. CNC obtained the 2003 versions from the Colombian National Department of Statitics, DANE.

Sample Calculations by Strata

The sample is constituted by 138 sampling points: 103 urban and 35 rural, distributed over 53 municipalities of 26 out of the 32 departments.

Sample sizes, Confidence levels and Margins of Error

The confidence level anticipated for the national sample was 95% with a margin of error of 2.6% assuming a 50/50 proportion for dichotomic variables .

The margins of error for a 95% Confidence Level are:

TAMAÑO DE MUESTRA Y MARGENES DE ERROR
Nivel de Confianza del 95%

Estratos	Tamaño de Muestra	Margen de error	%
Regiones		**M.A.S.**	**M.P.C.**
Atlantica	323	5,45	5,58
Bogota	231	6,45	6,59
Central	358	5,18	5,29
Oriental	274	5,92	6,05
Pacifica	263	6,04	6,18
Territorios Nacionales	54	13,34	13,63
Areas			
Urbana	1107	2,96	3,01
Rural	396	4,92	5,03
Total Pais	1503	2,53	2,58

Non Coverage Adjustment

To ensure efficiency, sufficiency and coverage of the sample, we adopted a Non Coverage Adjustment system which guarantees the minimum confidence level and maximum margin of error. In addition, the system eliminates biases resulting from replacements of interviewed units.

The system applies to the sample size (n) of each stratum a non coverage factor defined by:

$N^* = (1+t)\, n$

Where:

T = non interview rate.
N^*= final sample size

We chose a t average of 0.18.

Thus,

$N^* = (1+0.18)\ 1'500 = 1.770$ adults.

By the end of the field interviewing we ended up with a real size of 1’479 adults. 21 less than expected because of law and order issues (see Final Considerations about the interviewing process).

Staff involved with the Survey

CNC involved its 5 different branches (Bogota, Cali, Medellín, Barranquilla and Bucaramanga) in order to ensured a very high quality survey gathered in a very short time. Because of the country's current situation we were advised to stay in most of the areas very short periods of time, which implied complicated operations.

Because of the complexity of the questionnaire we used our most experienced interviewers, many of them with more than 15 years of field experience.

CNC involved a total of 101 staff members distributed as follows:

ASSIGNMENT	TOTAL STAFF
Field Coordinators	15
Field Supervisors	9
Field Interviewers	35
Field Quality Supervisors	10
Codifiers	8
Data Entry Staff	8
Data Validation Staff	8
Total for Field Interviewing and Data Entry	**93**
Directorial and Professional Personnel	5
Administrative Staff	3
Total Human Resources	**101**

10. Universe, Total Population By Region and Urban/Rural Areas

COLOMBIA: POBLACION TOTAL, PROYECCION AÑO 2004

Region	Area		
	Urbano	Rural	Total
Atlantica	6.912.796	2.843.894	9.756.690
Bogota	7.014.111	1.517	7.015.628
Central	7.659.319	3.093.365	10.752.684
Oriental	5.207.407	3.106.566	8.313.973
Pacifica	5.322.949	2.644.004	7.966.953
Territorios Nacionales	583.895	890.830	1.474.725
Total	32.700.477	12.580.176	45.280.653

Distribucion Porcentual (%)

Region	Area		
	Urbano	Rural	Total
Atlantica	70,9	29,1	100
Bogota	100,0	0,0	100
Central	71,2	28,8	100
Oriental	62,6	37,4	100
Pacifica	66,8	33,2	100
Territorios Nacionales	39,6	60,4	100
Total	72,2	27,8	100

Size and Sample Distribution by Strata

TAMAÑOS Y DISTRIBUCION DE LA MUESTRA POR ESTRATOS
RESUMEN GENERAL

	Urbano	Rural	Total
Atlantica			
+ de 300,000 habitantes	127		127
- de 300,000 habitantes	112	84	196
Total Atlantica	239	84	323
Bogota			
+ de 300,000 habitantes	231		231
Total Bogota	231		231
Central			
+ de 300,000 habitantes	150		150
- de 300,000 habitantes	112	96	208
Total Central	262	96	358
Oriental			
+ de 300,000 habitantes	66		66
- de 300,000 habitantes	112	96	208
Total Oriental	178	96	274
Pacifica			
+ de 300,000 habitantes	91		91
- de 300,000 habitantes	88	84	172
Total Pacifica	179	84	263
Territorios Nacionales			
- de 300,000 habitantes	18	36	54
Total Territorios Nacionales	18	36	54
Total	1.107	396	1.503

RESUMEN GENERAL

	MUESTRA	UPM	PUNTOS DE MUESTREO
Regiones			
Atlantica	323	20	40
Bogota	231	1	33
Central	358	23	46
Oriental	274	20	34
Pacifica	263	16	34
Territorios Nacionales	54	6	6
Total	1.503	86	193

Sample Selection by Strata, Areas and Cities

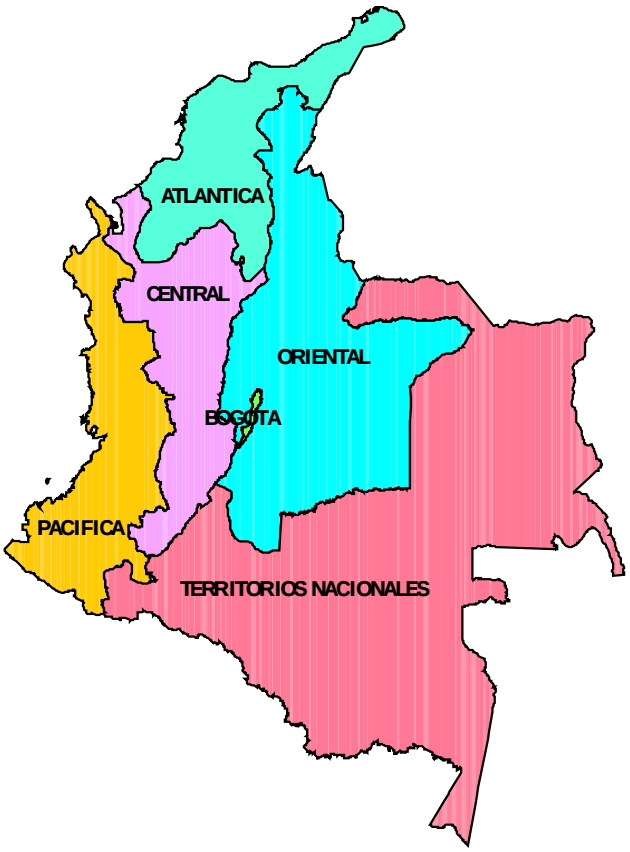
Distribucion de la Muestra ciudades con 300,000 o mas habitantes

Region	Departamento	Municipio	Poblacion año 2004						Puntos de muestreo	Tamaño Punto de muestreo	Muestra			
			Total	Urbana	Rural	% Poblacion Total	% Urbano del Municipo	% Rural del Municipo			Total	Urbana	Rural	% de la Muestra
ATLANTICA	ATLANTICO	BARRANQUILLA	1.359.700	1.356.873	2.827	3,0	99,8	0,2	6	7	42	42		2,8
	ATLANTICO	SOLEDAD	336.190	334.135	2.055	0,7	99,4	0,6	2	6	12	12		0,8
	BOLIVAR	CARTAGENA	1.004.074	927.657	76.417	2,2	92,4	7,6	5	7	35	35		2,3
	CESAR	VALLEDUPAR	371.763	300.550	71.213	0,8	80,8	19,2	2	6	12	12		0,8
	CORDOBA	MONTERIA	343.607	268.345	75.262	0,8	78,1	21,9	2	6	12	12		0,8
	MAGDALENA	SANTA MARTA	434.937	418.630	16.307	1,0	96,3	3,7	2	7	14	14		0,9
SUBTOTAL			**3.850.271**	**3.606.190**	**244.081**	**8,5**	**93,7**	**6,3**	**19**		**127**	**127**		**8,4**
BOGOTA	BOGOTA	BOGOTA	7.029.928	7.014.111	15.817	15,5	99,8	0,2	33	7	231	231		15,4
			7.029.928	**7.014.111**	**15.817**	**15,5**	**99,8**	**0,2**	**33**		**231**	**231**		**15,4**
CENTRAL	ANTIOQUIA	MEDELLIN	2.071.391	1.978.967	92.424	4,6	95,5	4,5	10	7	70	70		4,7
	ANTIOQUIA	BELLO	390.012	383.144	6.868	0,9	98,2	1,8	2	6	12	12		0,8
	CALDAS	MANIZALES	378.965	355.368	23.597	0,8	93,8	6,2	2	7	14	14		0,9
	HUILA	NEIVA	367.811	344.544	23.267	0,8	93,7	6,3	2	6	12	12		0,8
	QUINDIO	ARMENIA	316.301	309.391	6.910	0,7	97,8	2,2	2	6	12	12		0,8
	RISARALDA	PEREIRA	510.739	430.355	80.384	1,1	84,3	15,7	2	8	16	16		1,1
	TOLIMA	IBAGUE	444.460	417.658	26.802	1,0	94,0	6,0	2	7	14	14		0,9
SUBTOTAL			**4.479.679**	**4.219.427**	**260.252**	**9,9**	**657,3**	**42,7**	**22**		**150**	**150**		**10,0**
ORIENTAL	CUNDINAMARCA	SOACHA	310.038	304.343	5.695	0,7	98,2	1,8	2	6	12	12		0,8
	META	VILLAVICENCIO	358.621	314.015	44.606	0,8	87,6	12,4	2	6	12	12		0,8
	NORTE DE SANTANDER	CUCUTA	722.485	702.213	20.272	1,6	97,2	2,8	3	8	24	24		1,6
	SANTANDER	BUCARAMANGA	568.136	562.340	5.796	1,3	99,0	1,0	3	6	18	18		1,2
SUBTOTAL			**1.959.280**	**1.882.911**	**76.369**	**4,3**	**381,9**	**18,1**	**10**		**66**	**66**		**4,4**
PACIFICA	NARIÑO	PASTO	422.350	373.405	48.945	0,9	88,4	11,6	2	7	14	14		0,9
	VALLE	CALI	2.369.696	2.342.141	27.555	5,2	98,8	1,2	11	7	77	77		5,1
SUBTOTAL			**2.792.046**	**2.715.546**	**76.500**	**6,2**	**97,3**	**2,7**	**13**		**91**	**91**		**6,1**
TOTAL			**20.111.204**	**19.438.185**	**673.019**	**44,4**	**96,7**	**3,3**	**97**		**665**	**665**		**44,2**

Distribucion de la Muestra ciudades con 300,000 o menos habitantes

Region	Segmentos	Departamento	Municipio seleccionado del segmento	Poblacion año 2004 por punto de muestreo						Puntos de muestreo	Puntos de muestreo Urbanos	Puntos de muestreo Rurales	Tamaño por punto de muestreo Urbano (6 a 8)	Tamaño por punto de muestreo Rural (10 a 12)	Muestra			
				Poblacion Total del segmento	Poblacion Urbana del segmento	Poblacion Rural del segmento	% Poblacion Total Nacional	% Urbano	% Rural						Urbana	Rural	Total	% de la muestra
ATLANTICA	1	BOLIVAR	SAN JUAN NEPOMUCENO	843.045	600.814	242.231	1,9	71,3	28,7	3	2	1	8	12	16	12	28	1,9
	2	CESAR	SAN MARTIN	841.392	370.432	470.960	1,9	44,0	56,0	3	2	1	8	12	16	12	28	1,9
	3	CORDOBA	AYAPEL	843.905	473.841	370.064	1,9	56,1	43,9	3	2	1	8	12	16	12	28	1,9
	4	CESAR	PELAYA	842.608	355.572	487.036	1,9	42,2	57,8	3	2	1	8	12	16	12	28	1,9
	5	MAGDALENA	CERRO SAN ANTONIO	843.263	478.093	365.170	1,9	56,7	43,3	3	2	1	8	12	16	12	28	1,9
	6	SUCRE	MAJAGUAL	845.146	441.644	403.502	1,9	52,3	47,7	3	2	1	8	12	16	12	28	1,9
	7	SUCRE	CHALAN	847.060	586.210	260.850	1,9	69,2	30,8	3	2	1	8	12	16	12	28	1,9
SUBTOTAL				**5.906.419**	**3.306.606**	**2.599.813**	**13,0**	**56,0**	**44,0**	**21**	**14**	**7**			**112**	**84**	**196**	**13,0**
CENTRAL	8	ANTIOQUIA	CALDAS	786.238	408.968	377.270	1,7	52,0	48,0	3	2	1	7	12	14	12	26	1,7
	9	ANTIOQUIA	ABEJORRAL	785.288	481.799	303.489	1,7	61,4	38,6	3	2	1	7	12	14	12	26	1,7
	10	ANTIOQUIA	MARINILLA	782.313	552.671	229.642	1,7	70,6	29,4	3	2	1	7	12	14	12	26	1,7
	11	TOLIMA	ICONONZO	784.730	324.174	460.556	1,7	41,3	58,7	3	2	1	7	12	14	12	26	1,7
	12	CALDAS	MANZANARES	786.987	384.460	402.527	1,7	48,9	51,1	3	2	1	7	12	14	12	26	1,7
	13	TOLIMA	COYAIMA	783.954	400.137	383.817	1,7	51,0	49,0	3	2	1	7	12	14	12	26	1,7
	14	RISARALDA	SANTUARIO	782.759	509.594	273.165	1,7	65,1	34,9	3	2	1	7	12	14	12	26	1,7
	15	RISARALDA	QUINCHIA	780.736	378.089	402.647	1,7	48,4	51,6	3	2	1	7	12	14	12	26	1,7
SUBTOTAL				**6.273.005**	**3.439.892**	**2.833.113**	**13,8**	**54,8**	**45,2**	**24**	**16**	**8**			**112**	**96**	**208**	**13,8**
ORIENTAL	16	BOYACA	MUZO	794.446	323.711	470.735	1,8	40,7	59,3	3	2	1	7	12	14	12	26	1,7
	17	BOYACA	TUNJA	794.175	378.072	416.103	1,8	47,6	52,4	3	2	1	7	12	14	12	26	1,7
	18	CUNDINAMARCA	FACATATIVA	794.587	483.969	310.618	1,8	60,9	39,1	3	2	1	7	12	14	12	26	1,7
	19	CASANARE	MONTERREY	794.518	402.685	391.833	1,8	50,7	49,3	3	2	1	7	12	14	12	26	1,7
	20	META	GUAMAL	793.103	366.170	426.933	1,8	46,2	53,8	3	2	1	7	12	14	12	26	1,7
	21	BOYACA	SUTAMARCHAN	795.307	391.979	403.328	1,8	49,3	50,7	3	2	1	7	12	14	12	26	1,7
	22	SANTANDER	CONFINES	793.899	475.476	318.423	1,8	59,9	40,1	3	2	1	7	12	14	12	26	1,7
	23	SANTANDER	RIONEGRO	794.658	502.434	292.224	1,8	63,2	36,8	3	2	1	7	12	14	12	26	1,7
SUBTOTAL				**6.354.693**	**3.324.496**	**3.030.197**	**14,0**	**52,3**	**47,7**	**24**	**16**	**8**			**112**	**96**	**208**	**13,8**
PACIFICA	24	CAUCA	POPAYAN	740.802	333.226	407.576	1,6	45,0	55,0	3	2	1	6	12	12	12	24	1,6
	25	CAUCA	PADILLA	740.701	215.508	525.193	1,6	29,1	70,9	3	2	1	6	12	12	12	24	1,6
	26	NARIÑO	CUMBITARA	738.667	281.743	456.924	1,6	38,1	61,9	3	2	1	7	12	14	12	26	1,7
	27	NARIÑO	SANDONA	741.655	219.865	521.790	1,6	29,6	70,4	3	2	1	6	12	12	12	24	1,6
	28	VALLE	BUGA	741.616	500.586	241.030	1,6	67,5	32,5	3	2	1	7	12	14	12	26	1,7
	29	VALLE	FLORIDA	740.147	488.782	251.365	1,6	66,0	34,0	3	2	1	6	12	12	12	24	1,6
	30	VALLE	RIOFRIO	731.319	567.693	163.626	1,6	77,6	22,4	3	2	1	6	12	12	12	24	1,6
SUBTOTAL				**5.174.907**	**2.607.403**	**2.567.504**	**11,4**	**50,4**	**49,6**	**21**	**14**	**7**			**88**	**84**	**172**	**11,4**
TERRITORIOS NACIONALES	31	CAQUETA	FLORENCIA	490.655	279.971	210.684	1,1	57,1	42,9	2	1	1	8	12	6	12	18	1,2
	32	PUTUMAYO	PUERTO ASIS	498.056	170.230	327.826	1,1	34,2	65,8	2	1	1	8	12	6	12	18	1,2
	33	VAUPES	VILLA FATIMA*	486.014	133.694	352.320	1,1	27,5	72,5	2	1	1	8	12	6	12	18	1,2
SUBTOTAL				**1.474.725**	**583.895**	**890.830**	**3,3**	**39,6**	**60,4**	**6**	**3**	**3**			**18**	**36**	**54**	**3,6**
TOTAL				**25.183.749**	**13.262.292**	**11.921.457**	**55,6**	**52,7**	**47,3**	**96**	**63**	**33**			**442**	**396**	**838**	**55,8**
GRAN TOTAL				**45.294.953**	**32.700.477**	**12.594.476**	**100,0**	**72,2**	**27,8**						**1.107**	**396**	**1.503**	**100,0**

Geographical Location of the Sample



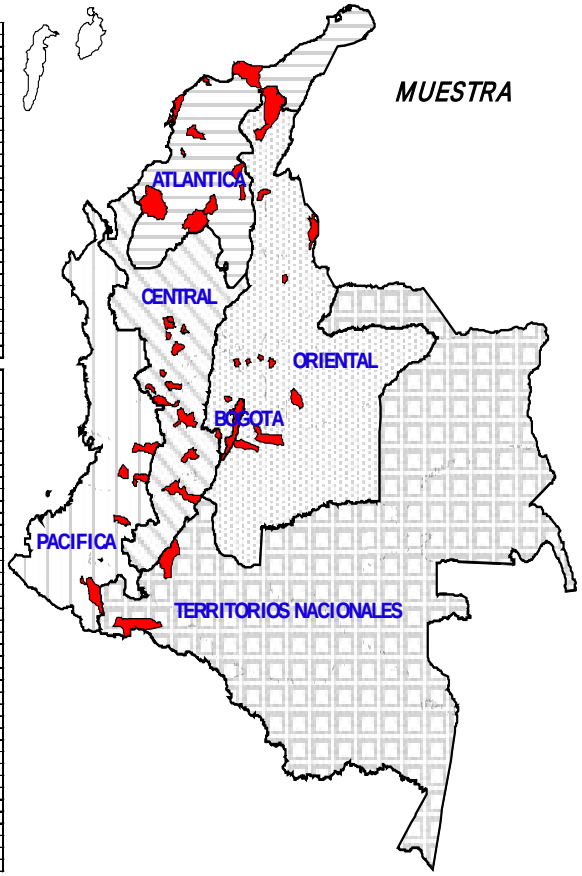
Cuadro No 1

Distribucion de la Muestra ciudades con 300,000 o mas habitantes

Region	Departamento	Municipio	Muestra Total
ATLANTICA	ATLANTICO	BARRANQUILLA	42
	ATLANTICO	SOLEDAD	12
	BOLIVAR	CARTAGENA	35
	CESAR	VALLEDUPAR	12
	CORDOBA	MONTERIA	12
	MAGDALENA	SANTA MARTA	14
SUBTOTAL			**127**
BOGOTA	BOGOTA	BOGOTA	231
			231
CENTRAL	ANTIOQUIA	MEDELLIN	70
	ANTIOQUIA	BELLO	12
	CALDAS	MANIZALES	14
	HUILA	NEIVA	12
	QUINDIO	ARMENIA	12
	RISARALDA	PEREIRA	16
	TOLIMA	IBAGUE	14
	CUNDINAMARCA	SOACHA	12
SUBTOTAL			**162**
ORIENTAL	META	VILLAVICENCIO	12
	NORTE DE SANTANDER	CUCUTA	24
	SANTANDER	BUCARAMANGA	18
SUBTOTAL			**54**
PACIFICA	NARIÑO	PASTO	14
	VALLE	CALI	77
SUBTOTAL			**91**
TOTAL			**665**

Distribucion de la Muestra ciudades con menos de 300,000 habitantes

Region	Departamento	Municipios	Muestra
ATLANTICA	BOLIVAR	SAN JUAN NEPOMUCENO	28
	CESAR	SAN MARTIN	28
	CORDOBA	AYAPEL	28
	CESAR	PELAYA	28
	MAGDALENA	CERRO SAN ANTONIO	28
	SUCRE	MAJAGUAL	28
	SUCRE	CHALAN	28
SUBTOTAL			**196**
CENTRAL	ANTIOQUIA	CALDAS	26
	ANTIOQUIA	ABEJORRAL	26
	ANTIOQUIA	MARINILLA	26
	TOLIMA	ICONONZO	26
	CALDAS	MANZANARES	26
	TOLIMA	COYAIMA	26
	RISARALDA	SANTUARIO	26
	RISARALDA	QUINCHIA	26
SUBTOTAL			**208**
ORIENTAL	BOYACA	MUZO	26
	BOYACA	TUNJA	26
	CUNDINAMARCA	FACATATIVA	26
	CASANARE	MONTERREY	26
	META	GUAMAL	26
	BOYACA	SUTAMARCHAN	26
	SANTANDER	CONFINES	26
	SANTANDER	RIONEGRO	26
SUBTOTAL			**208**
PACIFICA	CAUCA	POPAYAN	24
	CAUCA	PADILLA	24
	NARIÑO	CUMBITARA	26
	NARIÑO	SANDONA	24
	VALLE	BUGA	26
	VALLE	FLORIDA	24
	VALLE	RIOFRIO	24
SUBTOTAL			**172**
TERRITORIOS NACIONALES	CAQUETA	FLORENCIA	18
	PUTUMAYO	PUERTO ASIS	18
	VAUPES	VILLA FATIMA*	18
SUBTOTAL			**54**
TOTAL			**838**
GRAN TOTAL			**1.503**



Final Considerations about the Questionnaire and Field Interviewing

About the questionnaire: the questionnaire was long, 45 minutes in average, but in general respondents were willing to answer and we had very few interviews left incomplete.

Because of Colombia's internal conflict, some questions were especially sensitive. Some interviewers mentioned that the series on page 8 of the questionnaire generated some discomfort among some respondents. But surprisingly we had very few refusals to answer.

About field interviewing: by demand of local authorities, we were not able to apply the survey in the rural areas of Cumbitara, Nariño and Chalán, Sucre, because of the fragile security situation in these towns.

In the rest of the country, some of our interviewers were stopped and questioned by illegal groups who finally allowed us to perform the interviewing process.

Although many of the respondents were located in areas with heavy presence of illegal groups, there were no reports of pressure over respondents to induce any type of answer. To the contrary, field interviewers emphasized the free will of those who agreed to be part of the study.

CNC would like to extend its gratitude to every staff member involved in this study, specially to the brave men and women who defied security warnings and took the risk to perform a very well done job.