ANNEXES

ANNEX No. 1

QUESTIONNAIRE

Japan International Cooperation Agency (JICA)
National Institute of Development (INADE) Government of Perú

HEARING SURVEY QUESTIONNAIRE

FOR THE STUDY ON THE INTEGRATED WATER POLLUTION CONTROL
FOR PUNO INTERIOR BAY OF LAKE TITICACA

(This questionnaire will be used only for the study's purpose)

Interviewee No.: .....
Block: ① ② ③ ④ ⑤ ⑥ ⑦ ⑧
Address: .....
Interview date: ...../...../*1998*
Interviewer: .....

(A) Interviewee's profile

1. Name: ..... 2. Sex: ..... 3. Age: .....

4. Are you household head yes no
   If "no", what is your relationship with the household head?
   wife/husband brother/sister son/daughter
   father/mother others (.....)

(B) Dwelling condition *(This part should be specified by the Interviewer)*

1. Type of the house
   permanent, semi-permanent, temporary

2. Housing category
   residence, restaurant, shop, others: .....

3. Distance from the house to a road of more than 5m width
   in front of the premises, less than 10m, 10m-29m, 30m-49m, 50m or more

4. Distance from the house to a communal container or public discharge point:
   in front of the premises, less than 10m, 10m-29m, 30m-49m, 50m or more
   there is no communal container or discharge point in this are

(C) General Issues on Interviewee

1. How long has your family lived in this house?
   .....years

2. How had your family obtained this house?
   self built; inherited; purchased; rented; others

3. How many member is your family?
   ..... person(s)

4. What is the household head's occupation?
   public servant, employee of private company, owner of company, shop, etc.,
   unemployed, unknown, others

5. What is your family's monthly expenses (for food, transport, schooling, accommodation, medical, utilities, etc.)?
   less than.....S/month .....~.....S/month .....~.....S/month
   .....~.....S/month .....~.....S/month more than.....S/month

(D) Environmental and sanitary Issues

1. Do you think the area around your resident is clean?
   yes; no; no idea

2. Do you think that the Puno Bay's water quality became polluted and worsen than before?
   yes, no

3. What do you think is the main cause of the degradation of Puno Bay's water quality?
   waste water discharged from households, waste water discharged from hotels, restaurants, etc.;
   solid wates discharged from households, solid wates discharged from hotels, restaurants, etc.;
   others; don't know

4. Does the polluted water of Puno Bay cause you any incovenience or discomfort?
   yes no

5. Do you know which government agencies are responsible for wastewater control?:
   no
   yes → How do you rate the performance of these agencies?
   good; poor; don't know

6. What problems do you consider will occur if the lack of wastewater control is allowed to continue?:
   increased water pollution increased health risk and medical costs
   loss the sources of income due to the decrease of tourists visiting Puno City
   don't know others (specify: .....)

(E) Issues on waste water

1. How do you dispose of your wash water and kitchen water?
   onto ground; on into drain; into ditch; onto garden; into septic tank;
   into soak pit; others (specify:.....)

2. What is the type of your toilet?
   Individual toilet with pour flushig; →
   individual toilet with western flushing; → } *go to the next questions*
   public toilet; no toilet; →
   neighbor's toilet others → } *pass the following questions and go to Part (F)*

3. How do you dispose of your toilet wastewater?
   onto ground; into drain; into ditch;
   into septic tank; into soak pit; others: (specify: .....);

4. What is the type of your on-site sewage facility?
   leaching pit; septic tank with leaching;
   directly flow to ditch; septic tank without leaching (effluent flows directly to ditch);
   others

5. When did you construct these on-site sewage facility?
   one year ago; two years ago; three years ago;
   four years ago; more than five year ago

6. What is the condition of your on-site sewage facilities?
   very good; causing bad odor;
   sometimes clogging; bad condition

7. Are you satisfied with the present condition of your on-site sewage facilities?
   yes; no; dont' know

8. If you are dissatisfied with the present condition of your on-site sewage facilities, what improvements are you planning?
   none, do not know what else can be done;
   wait for the newly installed wastewater collection system;
   install the new on-site facilities;
   other (specify: .....)

(F) Issues on solid waste

① Are you concerned with the garbage which is dumped in the public areas around your resident?
   yes; no; don't know

2. If you are concerned, why? *(select the most concerned issues)*
   because it causes disease; because it's not good for the community's scenery;
   because it promotes flies; because it causes bad odors;
   because it causes the degradation of Puno Bay's water quality; others (specify.....)

3. Are you concerned with the garbage (solid wastes) generated within your resident?
   yes; no; no idea

4. Have you ever had any guidance on the proper methods of dispose your wastes?
   yes; no;

5. What do you do with the garbage after cleaning your house?
   bury/burn it at my backyard;
   discharge it at specific place for the regular collection service;
   hand it over to the waste collector;
   discard it at the edge of the road; discard it in the ditch; discard it in the ravine;

6. Do you know how the wastes discharged from your house is collected?
   yes; no; don't know
   ↳ 7. How is the wastes collected as you know?
   door-to-door collection by using vehicles or carts;
   residents carry the wastes to a collection point by themselves;
   others (specify:.....)

8. Usually who is the person in charge of disposing the garbage in your family?
   household head; hosewife, children,
   housekeeper (servant); others (.....)

9. Do you believe that your present manner of garbage discarding is correct?
   yes; no; don't know

10. Do you know which authority is responsible for the disposal of solid wastes discharged by residents in your community?
    state; municipality; residets themselves; state sanitation company;
    private contractor; others (.....);
    don't know

11. Do you pay some fees for the collection and disposal of your garbage?
yes; no; do not pay any fee.

→ 12. How much do you pay for the collection of your garbage monthly?
less than.....S/month .....~.....S/mont .....~.....S/mont
.....~.....S/month .....~.....S/mont more than.....S/mont

13. Which method do you use to pay for the garbage collection service?
pay directly to the collection company;
pay throyugh the collector determined by the community;
others (specify:.....)

14. How do you think about the present fee for the collection of garbage in your town?
expensive; little bit expensive; appropriate; cheap

15. Are you satisfied with the current garbage collection service?
yes; no; don't know

16. If no, what are the reasons? *(Several answers are allowed)*
frequency of collection service is low; collection time is irregular;
collection time is very early or late; behavior of workers is bad;
collection work is crude; collection fee is expensive;
collection system is not fair; others (specify:.....)

17. If you are requested to carry your wastes to a specified communal containers close to your house, in order to improve the sanitary condition around your resident, do you agree?
no; yes; don't know

→ 18. What are the reasons?
communal containers are far;
communal containers are not hygienic;
there is not custom to dispose wastes in such manner;
others (specify:.....)

19. Do you know that newspapers, beverage bottkes, cans, etc. can be recycled and reused?
yes; no

(G) Issues on the willingness to pay and cooperate

1. Does anyone in your family sweep the road shoulder or adjacent public area in front of your house?
yes, everyday; yes, sometimes; no; don't know

2. Does anyone in your family clean the drain around your house?
yes, everyday; yes, sometimes; no; don't know

3. Is there the "Clean Day" in your community on which residents are requested to participate in the cleansing of roads, parks, community centers, etc.?
yes, there is;

→ 4. Do you usually participate in such activities on that day?
yes; no
no, there is not;

→ 5. Do you think such "Clean Day" should be organized in your community?
yes; no; no idea
don't know

6. Do you think the residents should cooperate with the municipal authorities in order to improve the Puno City's environment.
   yes; no; no idea

7. It is suggested that the residents should par for the operation cost of wastewater facilities. Do you agree with this suggestion?
   yes; no; don't know

8. If you are requested to contribute to the operation of the wastewater facilities by paying some kinds of fee, would you be willing to pay?
   yes → How much would you be willing to pay monthly: .....S/.month;
   no;
   don't know

9. If the cooperative association in your area were to raise some funds (in order to engage beneficial activities for residents), through sale of reusable or recyclable materials, would you be able to contribute or participe?
   yes; no; don't know

(H) Others (please describe here your opinion on any issue relating to the Puno Bay's environment, if you have.)

ANNEX No. 2

DATA RELATED TO THE SURVEY QUESTIONNAIRE

DATA RELATED TO THE SURVEY QUESTIONNAIRE

Concern with the garbage disposed (public areas)

ZONES	ANSWERS		
	YES	NO	DON'T KNOW
A -1	45	5	3
A -2	55	3	1
B -1	51	3	2
B -2	52	0	4
C -1	50	4	2
C -2	56	0	0
D -1	49	3	2
D -2	43	4	4
TOTAL	401	22	18

Concern with the garbage disposed (Public areas)		Percentage %
YES	401	90.9
NO	22	5.0
Dont'Know	18	4.1
Interviewe number	441	100.0

DO YOU KNOW METHODS OF SOLID WASTE COLLECTION

ZONAS	YES	NO	DON'T KNOW
A1	23	23	7
A2	20	29	10
B1	31	22	3
B2	21	25	10
C1	23	25	8
C2	21	30	5
D1	18	25	11
D2	16	19	16
ANSWERS	173	198	70
%	39	45	16

ANNEX No. 3

A) DATA RELATED TO GENERATED OF WASTE
B) DATA RELATED TO GENERATION PER CAPITA

WEIGHT OF WASTE COLLECTION
CLASSIFIED BY ZONES

DATA RELATED TO GENERATED OF WASTE BY COMMERCIAL SECTOR

Weight of waste collection depured

Zone: A-1 JIRON LIMA

Number of samples	Number of interview	Number of workers	Weight of waste(Kg)				Waste Generated by day (Kg/day)
			6/12	7/12	8/12	9/12	
1	3	6		0.55	0.40	0.20	
2	4	6				3.25	
3	5	1		1.40	0.25	0.40	
4	6	2		0.15	1.25	0.25	
5	8	3		3.50	0.30	0.70	
6	10	2		1.70	0.10	0.20	
7	12	2		0.30	0.20	0.25	
8	14	3				1.25	
9	18	1		0.40	0.15	2.50	
10	19	3		0.05	0.10	0.10	
11	20	1		1.90	0.40	0.10	
12	21	2		0.90	0.30	0.20	
13	22	5		0.30		0.80	
14	23	2		2.40		0.85	
15	24	1			1.90	1.40	
16	29	2		0.80		2.00	
17	31	3		0.35	2.55	1.10	
18	32	5				0.15	
19	34	2		0.20		0.10	
20	36	2		0.05		0.05	
21	37	2		2.35	1.00	0.90	
22	38	5				3.80	
23	40	1				0.80	
24	42	2			0.35	1.75	
25	43	1				1.00	
26	45	3				3.80	
27	46	5		7.10	0.60	1.70	
28	49	2		1.25	0.60	0.55	
29	50	2				2.80	
30	51	1		0.80	0.20	0.30	
31	53	2		2.30		0.80	
	Total	80		28.75	10.65	34.05	24.48

Weight of waste collection depured

Zone: A-2 MERCADO CENTRAL

Number of samples	Number of interview	Number of workers	Weight of waste(Kg)				Waste Generated by day (Kg/day)
			6/12	7/12	8/12	9/12	
1	2	1	1.40	0.40	1.70		
2	3	2	2.75	1.30	4.80		
3	6	1		0.10	0.25	0.20	
4	10	1	2.05	2.50		0.10	
5	12	1	1.10	3.55	2.50		
6	19	4		5.40	2.10	8.15	
7	20	2		6.50		3.00	
8	21	1	1.70		0.20	0.10	
9	22	1	1.80	1.10	0.10	0.45	
10	23	1	0.35	0.35	0.15		
11	25	2	6.00	1.20		1.00	
12	26	2	2.95	2.90	1.90	2.40	
13	27	1		4.80		0.05	
14	28	1	2.40	1.80	0.45		
15	30	1				4.40	
16	31	1	3.25	0.80	1.15	2.35	
17	32	2			2.50	2.30	
18	33	2				1.70	
19	34	1	2.90	0.40	0.30	0.20	
20	35	1	0.40	1.80	0.10	0.05	
21	36	2	1.80	1.15	1.50	0.95	
22	37	1	0.25	0.95	0.30		
23	40	2		0.25	1.00	0.45	
24	49	1		0.15		2.50	
25	51	1	2.30	3.25	2.90		
26	54	2	0.95		0.60	25.30	
27	55	1	5.00	4.00	1.55		
	Total	39	39.35	44.65	26.05	55.65	42.12

Weight of waste collection depurade by zones

Zone: B-1

Record No.	Number of family member	Weight of waste(Kg)				Generated waste per capita (Kg./person/day)				Average per capita (Kg/person/day)
		6/12	7/12	8/12	9/12	6/12	7/12	8/12	9/12	
1	4		0.25	4.85	3.20	0.00	0.06	1.21	0.80	0.52
3	4		0.40	1.55	0.30	0.00	0.10	0.39	0.08	0.14
4	6	2.90	2.65	1.00	3.60	0.24	0.44	0.17	0.60	0.36
6	2	0.10	1.45	1.60		0.03	0.73	0.80	0.00	0.39
7	3	3.35		3.95	2.20	0.56	0.00	1.32	0.73	0.65
8	5	1.50	0.50	0.75	0.90	0.15	0.10	0.15	0.18	0.15
9	5	0.90	0.55	3.90	2.10	0.09	0.11	0.78	0.42	0.35
10	2	1.50	0.90	1.20	2.00	0.38	0.45	0.60	1.00	0.61
11	6	1.80		2.80	0.30	0.15	0.00	0.47	0.05	0.17
12	3		1.40	0.80	0.45	0.00	0.47	0.27	0.15	0.22
13	6	0.35	0.30	0.45	0.30	0.03	0.05	0.08	0.05	0.05
14	4	1.00	0.70	0.35	1.90	0.13	0.18	0.09	0.48	0.22
15	4	1.00	2.10	1.10	0.60	0.13	0.53	0.28	0.15	0.27
17	4			1.45	1.10	0.00	0.00	0.36	0.28	0.16
18	4	1.20		3.90	1.60	0.15	0.00	0.98	0.40	0.38
19	4	1.10	0.30	1.25	0.75	0.14	0.08	0.31	0.19	0.18
20	4	1.00	1.80	0.65	0.30	0.13	0.45	0.16	0.08	0.20
22	3		3.90	1.40	0.60	0.00	1.30	0.47	0.20	0.49
24	6	3.10	1.10	1.80	1.85	0.26	0.18	0.30	0.31	0.26
27	3	4.00	1.35	0.25	1.35	0.67	0.45	0.08	0.45	0.41
28	3	1.70	0.45	0.30		0.28	0.15	0.10	0.00	0.13
32	4	1.80	3.80	0.65	0.50	0.23	0.95	0.16	0.13	0.37
35	5		1.00	1.70	2.40	0.00	0.20	0.34	0.48	0.26
36	4	5.80	1.70		1.60	0.73	0.43	0.00	0.40	0.39
37	4	0.30		1.80	0.50	0.04	0.00	0.45	0.13	0.15
39	4	2.90	1.30	1.25		0.36	0.33	0.31	0.00	0.25
40	3	0.90	0.75	0.60		0.15	0.25	0.20	0.00	0.15
43	6	2.40	1.90	2.10	2.50	0.20	0.32	0.35	0.42	0.32
44	3	1.00	3.25	0.50	1.10	0.17	1.08	0.17	0.37	0.45
45	6	2.00	0.70		3.50	0.17	0.12	0.00	0.58	0.22
46	3	0.90		2.30	1.60	0.15	0.00	0.77	0.53	0.36
48	3	2.10	2.80	0.45	1.50	0.35	0.93	0.15	0.50	0.48
49	5	1.55		2.20	0.55	0.16	0.00	0.44	0.11	0.18
50	4	7.10	1.00	1.80		0.89	0.25	0.45	0.00	0.40
52	5	1.30	0.65	0.40	2.50	0.13	0.13	0.08	0.50	0.21
53	5	2.60		0.50	0.25	0.26	0.00	0.10	0.05	0.10
54	3	2.30		0.45	0.90	0.38	0.00	0.15	0.30	0.21
55	4	2.30	0.35	0.70	0.40	0.29	0.09	0.18	0.10	0.16
56	4	1.90	3.60		2.10	0.24	0.90	0.00	0.53	0.42
										0.30

Weight of waste collection depurade by zones

Zone: B-2

Record No.	Number of family member	Weight of waste(Kg)				Generated waste per capita (Kg./person/day)				Average per capita (Kg/person/day)
		6/12	7/12	8/12	9/12	6/12	7/12	8/12	9/12	
2	3		3.30		0.60	0.00	1.10	0.00	0.20	0.33
3	5		2.30	1.15	0.35	0.00	0.46	0.23	0.07	0.19
4	8		1.25	0.90	1.80	0.00	0.16	0.11	0.23	0.12
5	5	1.90	0.35	0.80		0.19	0.07	0.16	0.00	0.11
6	9	5.50	2.45	0.30	6.15	0.31	0.27	0.03	0.68	0.32
7	8	4.00	0.90	25.80	8.40	0.25	0.11	3.23	1.05	1.16
8	6	3.15		1.70	2.75	0.26	0.00	0.28	0.46	0.25
9	6	3.40	1.00	2.70	0.60	0.28	0.17	0.45	0.10	0.25
11	4	4.20	0.45	1.85		0.53	0.11	0.46	0.00	0.28
12	5	4.20	2.20	1.55	0.65	0.42	0.44	0.31	0.13	0.33
15	4	1.00	4.80	0.15		0.13	1.20	0.04	0.00	0.34
17	7	1.20	1.20	0.50	3.00	0.09	0.17	0.07	0.43	0.19
18	5	2.45	7.70	1.50		0.25	1.54	0.30	0.00	0.52
20	13	0.90	1.45	2.40	0.40	0.03	0.11	0.18	0.03	0.09
25	9	3.15	0.80	0.40	0.40	0.18	0.09	0.04	0.04	0.09
26	3		2.80		0.35	0.00	0.93	0.00	0.12	0.26
27	3		0.90	5.25	1.60	0.00	0.30	1.75	0.53	0.65
30	12	0.40	3.50	0.30		0.02	0.29	0.03	0.00	0.08
31	5	0.45	1.15	0.60	2.10	0.05	0.23	0.12	0.42	0.20
32	6		4.10	1.80	3.60	0.00	0.68	0.30	0.60	0.40
33	5	3.00	2.45		1.25	0.30	0.49	0.00	0.25	0.26
34	3		5.70	5.80	4.40	0.00	1.90	1.93	1.47	1.33
35	7	2.75		3.30	3.75	0.20	0.00	0.47	0.54	0.30
37	2	2.65	5.35	1.90	3.00	0.66	2.68	0.95	1.50	1.45
39	5		1.00	3.95	8.00	0.00	0.20	0.79	1.60	0.65
40	5	3.50	2.00	4.10	2.65	0.35	0.40	0.82	0.53	0.53
41	5	1.25	0.40	1.20	0.90	0.13	0.08	0.24	0.18	0.16
43	6	1.80	1.45	0.60		0.15	0.24	0.10	0.00	0.12
44	8	3.30	2.10	0.30	3.45	0.21	0.26	0.04	0.43	0.23
45	5	2.15	3.10	1.90		0.22	0.62	0.38	0.00	0.30
47	2		6.90	0.70	1.80	0.00	3.45	0.35	0.90	1.18
48	5	3.40	3.20	9.40	1.30	0.34	0.64	1.88	0.26	0.78
49	8		2.20	3.50	1.40	0.00	0.28	0.44	0.18	0.22
51	5	1.00	0.80	0.30	0.40	0.10	0.16	0.06	0.08	0.10
53	12	6.50	2.20	3.80	5.65	0.27	0.18	0.32	0.47	0.31
54	9	0.25		0.70	0.40	0.01	0.00	0.08	0.04	0.03
55	5	0.50	1.20		2.20	0.05	0.24	0.00	0.44	0.18
56	4	0.40	1.10		3.55	0.05	0.28	0.00	0.89	0.30
										0.39

DATA RELATED TO GENERATION PER CAPITA

Weight of waste collection depurade by zones

Zone: C-1

Record No.	Number of family member	Weight of waste(Kg)				Generated waste per capita (Kg./person/day)				Average per capita (Kg/person/day)
		6/12	7/12	8/12	9/12	6/12	7/12	8/12	9/12	
1	6			2.30	1.55	0.00	0.00	0.38	0.26	0.16
2	4		1.90	0.60	0.65	0.00	0.48	0.15	0.16	0.20
4	3	1.00	1.60		0.30	0.17	0.53	0.00	0.10	0.20
8	5	3.30	1.50	0.75	1.00	0.33	0.30	0.15	0.20	0.25
9	4	1.80		0.85	1.20	0.23	0.00	0.21	0.30	0.18
10	5	2.25		1.20	2.10	0.23	0.00	0.24	0.42	0.22
12	3	0.70		1.70	1.00	0.12	0.00	0.57	0.33	0.25
13	8	2.00	2.00	0.80		0.13	0.25	0.10	0.00	0.12
14	4	1.60		1.00	1.20	0.20	0.00	0.25	0.30	0.19
15	5	0.55	4.45	0.50	0.50	0.06	0.89	0.10	0.10	0.29
17	5	0.10	0.10	1.80	0.10	0.01	0.02	0.36	0.02	0.10
18	6	0.90	2.80	1.20		0.08	0.47	0.20	0.00	0.19
21	3			1.20	1.50	0.00	0.00	0.40	0.50	0.23
22	7		1.50	0.40	1.25	0.00	0.21	0.06	0.18	0.11
23	4	1.10		0.40	1.30	0.14	0.00	0.10	0.33	0.14
24	4	0.75	5.50	2.50	0.50	0.09	1.38	0.63	0.13	0.55
26	6		0.35	0.40	1.75	0.00	0.06	0.07	0.29	0.10
27	4	1.50	1.10	1.60	0.50	0.19	0.28	0.40	0.13	0.25
30	3		1.05	0.50	0.85	0.00	0.35	0.17	0.28	0.20
31	3	2.70	1.00	0.70	1.70	0.45	0.33	0.23	0.57	0.40
33	4		0.25	1.20	1.00	0.00	0.06	0.30	0.25	0.15
35	5	0.55	0.45	0.40	0.25	0.06	0.09	0.08	0.05	0.07
36	3	0.65	3.15	0.60	1.90	0.11	1.05	0.20	0.63	0.50
37	5	1.00		1.60	0.70	0.10	0.00	0.32	0.14	0.14
38	3	1.00		1.30	2.45	0.17	0.00	0.43	0.82	0.35
39	4	0.40	0.80	0.50		0.05	0.20	0.13	0.00	0.09
40	5		1.50	0.80	0.40	0.00	0.30	0.16	0.08	0.14
41	6	1.60	0.55	0.90	1.30	0.13	0.09	0.15	0.22	0.15
47	3		1.35	0.90	0.70	0.00	0.45	0.30	0.23	0.25
48	4		0.35	0.40	2.50	0.00	0.09	0.10	0.63	0.20
50	5	2.55	0.95	2.00	2.70	0.26	0.19	0.40	0.54	0.35
51	5	2.50	0.40	0.50	0.50	0.25	0.08	0.10	0.10	0.13
56	5	1.40	0.80	0.90	1.25	0.14	0.16	0.18	0.25	0.18
										0.22

The quantity of waste in the first day, it corresponds to the generation in two days.
It is necessary to divide between two for obtain the generation per capita daily.

Weight of waste collection depurade by zones

Zone C-2

Record No.	Number of family member	Weight of waste(Kg)				Generated waste per capita (Kg./person/day)				Average per capita (Kg/person/day)
		6/12	7/12	8/12	9/12	6/12	7/12	8/12	9/12	
1	6		1.50	0.50	0.30	0.00	0.25	0.08	0.05	0.10
2	5	1.00	1.00	0.40		0.10	0.20	0.08	0.00	0.10
4	6	1.10	0.50	0.60	0.35	0.09	0.08	0.10	0.06	0.08
5	5	0.30	1.10	1.15	1.50	0.03	0.22	0.23	0.30	0.20
6	6	0.30	1.80	1.10	2.50	0.03	0.30	0.18	0.42	0.23
7	12	1.70	0.40	1.40		0.07	0.03	0.12	0.00	0.06
9	7	4.10	4.25	3.60		0.29	0.61	0.51	0.00	0.35
10	6	1.90	2.20	0.10		0.16	0.37	0.02	0.00	0.14
11	6	0.30	2.50	0.20	3.70	0.03	0.42	0.03	0.62	0.27
15	5		1.20		2.70	0.00	0.24	0.00	0.54	0.20
16	5	1.30	2.75	1.65		0.13	0.55	0.33	0.00	0.25
18	6	0.50	1.70		0.40	0.04	0.28	0.00	0.07	0.10
19	6	0.80	4.00	1.10	0.90	0.07	0.67	0.18	0.15	0.27
20	6	5.10	1.90	2.85	0.75	0.43	0.32	0.48	0.13	0.34
21	5	1.00	1.50	0.50	0.60	0.10	0.30	0.10	0.12	0.16
23	6	1.80	0.50	0.95	1.25	0.15	0.08	0.16	0.21	0.15
24	7	0.80	1.50	2.65		0.06	0.21	0.38	0.00	0.16
25	6	1.10	2.40	3.00	0.80	0.09	0.40	0.50	0.13	0.28
26	10	3.15	2.55	2.50	1.10	0.16	0.26	0.25	0.11	0.19
27	5	1.10	2.00	2.00		0.11	0.40	0.40	0.00	0.23
29	4		0.40	1.90	9.70	0.00	0.10	0.48	2.43	0.75
30	5	3.80	0.50	0.20	1.10	0.38	0.10	0.04	0.22	0.19
31	8	3.20	3.00	5.90	2.30	0.20	0.38	0.74	0.29	0.40
32	3		3.00	1.25	3.60	0.00	1.00	0.42	1.20	0.65
33	9	1.80	0.55	1.50	0.45	0.10	0.06	0.17	0.05	0.09
36	9	4.70	2.50	1.45	5.70	0.26	0.28	0.16	0.63	0.33
37	5		0.50	3.00	3.10	0.00	0.10	0.60	0.62	0.33
39	4	0.25	0.30	0.30		0.03	0.08	0.08	0.00	0.05
40	5	1.80	0.90	1.25	1.70	0.18	0.18	0.25	0.34	0.24
41	6	0.75	0.80	0.40	1.90	0.06	0.13	0.07	0.32	0.14
42	5	2.75	1.50	2.10	1.60	0.28	0.30	0.42	0.32	0.33
46	12	4.70	2.00	5.10	5.50	0.20	0.17	0.43	0.46	0.31
47	6	3.60	3.20	0.30	0.60	0.30	0.53	0.05	0.10	0.25
48	3	1.60	1.20	0.40	0.85	0.27	0.40	0.13	0.28	0.27
49	5	0.20	0.75	1.00	7.50	0.02	0.15	0.20	1.50	0.47
50	4	1.20	1.20		1.00	0.15	0.30	0.00	0.25	0.18
52	3	2.80	1.30	1.30		0.47	0.43	0.43	0.00	0.33
55	5	0.85	0.80		2.40	0.09	0.16	0.00	0.48	0.18
										0.25

Weight of waste collection depurade by zones

Zone: D -1

Record No.	Number of family member	Weight of waste(Kg)				Generated waste per capita (Kg./person/day)				Average per capita (Kg/person/day)
		6/12	7/12	8/12	9/12	6/12	7/12	8/12	9/12	
1	4	3.50		4.00	1.30	0.44	0.00	1.00	0.33	0.44
2	5	5.50	4.80			0.55	0.96	0.00	0.00	0.38
3	6	0.90	1.10	0.85	2.65	0.08	0.18	0.14	0.44	0.21
4	2	1.60	3.10	0.90	0.80	0.40	1.55	0.45	0.40	0.70
5	5	3.30	0.50	5.20	0.70	0.33	0.10	1.04	0.14	0.40
7	6	2.50	5.70	2.10	7.95	0.21	0.95	0.35	1.33	0.71
8	6	0.80	0.15		1.65	0.07	0.03	0.00	0.28	0.09
9	8	4.00		2.00	2.35	0.25	0.00	0.25	0.29	0.20
10	8	5.90	8.20		1.40	0.37	1.03	0.00	0.18	0.39
11	5	5.10	0.80	2.90	2.50	0.51	0.16	0.58	0.50	0.44
13	6	2.10	0.70		1.60	0.18	0.12	0.00	0.27	0.14
14	5	4.60	1.70	1.90		0.46	0.34	0.38	0.00	0.30
16	6	5.60	1.40	5.40	1.80	0.47	0.23	0.90	0.30	0.48
21	3	1.20	0.80	1.10	1.00	0.20	0.27	0.37	0.33	0.29
22	5	0.75	0.70	0.50	0.90	0.08	0.14	0.10	0.18	0.12
23	2	1.70	1.50	2.10	2.50	0.43	0.75	1.05	1.25	0.87
25	4	6.25		1.85	1.35	0.78	0.00	0.46	0.34	0.40
26	3		2.50		3.05	0.00	0.83	0.00	1.02	0.46
27	4	1.80	5.00	1.60	6.50	0.23	1.25	0.40	1.63	0.88
28	4	2.00	0.55	2.90	6.20	0.25	0.14	0.73	1.55	0.67
31	2	0.40	0.10		6.05	0.10	0.05	0.00	3.03	0.79
33	6	3.50	3.40	1.80	3.50	0.29	0.57	0.30	0.58	0.44
34	3		3.00	2.50		0.00	1.00	0.83	0.00	0.46
36	3		1.10	0.65	1.90	0.00	0.37	0.22	0.63	0.30
37	5	4.00	1.70	3.20	1.80	0.40	0.34	0.64	0.36	0.44
39	5	0.80			1.20	0.08	0.00	0.00	0.24	0.08
40	7		1.00	0.30		0.00	0.14	0.04	0.00	0.05
41	5	1.30	0.30	1.90		0.13	0.06	0.38	0.00	0.14
44	5			2.90	2.80	0.00	0.00	0.58	0.56	0.29
45	4	5.20	2.20	0.40	3.20	0.65	0.55	0.10	0.80	0.53
46	8	5.80	2.00	2.65	1.30	0.36	0.25	0.33	0.16	0.28
48	11	3.10	3.30		2.55	0.14	0.30	0.00	0.23	0.17
49	4	5.90	5.20		4.65	0.74	1.30	0.00	1.16	0.80
50	4	1.30	3.00	1.10		0.16	0.75	0.28	0.00	0.30
51	6	2.40	0.60	0.50	0.55	0.20	0.10	0.08	0.09	0.12
52	4	10.00	1.80	5.50	2.60	1.25	0.45	1.38	0.65	0.93
53	7	1.40	3.00		0.60	0.10	0.43	0.00	0.09	0.15
54	6	1.30	2.40		3.40	0.11	0.40	0.00	0.57	0.27
										0.41

Weight of waste collection depurade by zones

Zone D-2

Record No.	Number of family member	Weight of waste(Kg).				Generated waste per capita (Kg./person/day)				Average per capita (Kg/person/day)
		6/12	7/12	8/12	9/12	6/12	7/12	8/12	9/12	
1	5	1.10	2.80	0.50		0.11	0.56	0.10	0.00	0.19
2	6	3.10	0.95	4.50		0.26	0.16	0.75	0.00	0.29
3	12	4.80	2.40	2.10	0.20	0.20	0.20	0.18	0.02	0.15
5	4	0.90	0.70	0.95	0.55	0.11	0.18	0.24	0.14	0.17
6	2	2.30	3.40		1.60	0.58	1.70	0.00	0.80	0.77
7	5	2.00	3.00		1.40	0.20	0.60	0.00	0.28	0.27
8	6	13.25		4.30	1.35	1.10	0.00	0.72	0.23	0.51
11	5	4.90	1.90		7.25	0.49	0.38	0.00	1.45	0.58
16	5	1.20		0.35	2.00	0.12	0.00	0.07	0.40	0.15
18	2	2.10	5.50	3.15	3.20	0.53	2.75	1.58	1.60	1.61
19	6	0.70	0.90	0.45	0.35	0.06	0.15	0.08	0.06	0.09
20	3	2.00	0.90	0.80	0.70	0.33	0.30	0.27	0.23	0.28
21	4	2.00	2.60	0.20	0.40	0.25	0.65	0.05	0.10	0.26
22	7	3.10	0.80	1.00	0.80	0.22	0.11	0.14	0.11	0.15
23	7	0.90	0.70	1.55	1.10	0.06	0.10	0.22	0.16	0.14
26	6	3.25	1.00	1.90		0.27	0.17	0.32	0.00	0.19
30	8	0.20	6.60	1.30	4.10	0.01	0.83	0.16	0.51	0.38
31	5	0.60	1.10	1.90	0.50	0.06	0.22	0.38	0.10	0.19
32	3	0.60	1.70	1.55	1.50	0.10	0.57	0.52	0.50	0.42
33	4	1.50	1.40	1.00	1.30	0.19	0.35	0.25	0.33	0.28
34	2	2.60	1.20	1.70	1.30	0.65	0.60	0.85	0.65	0.69
40	5	5.25		8.84	6.10	0.53	0.00	1.77	1.22	0.88
41	4	3.40	1.80	1.65	2.50	0.43	0.45	0.41	0.63	0.48
43	2	0.80	0.30	0.30	0.70	0.20	0.15	0.15	0.35	0.21
46	2	4.25	5.50	0.80	2.30	1.06	2.75	0.40	1.15	1.34
47	8		2.20	1.10	7.10	0.00	0.28	0.14	0.89	0.33
48	7	3.40	1.30	0.90	1.45	0.24	0.19	0.13	0.21	0.19
49	9	1.90	0.40	1.45		0.11	0.04	0.16	0.00	0.08
50	4	4.35	0.60	4.40		0.54	0.15	1.10	0.00	0.45
51	7	6.40	0.30	0.40	0.20	0.46	0.04	0.06	0.03	0.15
										0.41

ANNEX No. 4

DATA RELATED TO THE SPECIFIC GRAVITY

DATA RELATED TO SPECIFIC GRAVITY BY ZONES

Zona: A -1

7/12			8/12			9/12			Average
W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	
5.4	40	0.14	3.3	35	0.09	3.7	35	0.11	
4.7	42	0.11	2.9	35	0.08	7.0	40	0.18	
6.4	43	0.15	4.6	35	0.13	4.5	35	0.13	
		0.13			0.10			0.14	0.12

Zona: A -2

6/12			7/12			8/12			9/12			Average
W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	
5.5	25	0.22	12.5	40	0.31	11.7	40	0.29	13.5	40	0.34	
17.8	65	0.27	10.9	35	0.31	10.5	30	0.35	6.5	35	0.19	
7.0	25	0.28							8.2	35	0.23	
		0.26			0.31			0.32			0.25	0.29

Zona: B -1

6/12			7/12			8/12			9/12			Average
W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	
16.8	70	0.24	18.1	100	0.18	12.0	70	0.17	5.0	35	0.14	
13.8	70	0.20	10.0	60	0.17	5.5	45	0.12	7.5	40	0.19	
11.0	80	0.14	5.1	30	0.17	8.5	80	0.11	7.7	45	0.17	
		0.19			0.17			0.13			0.17	0.17

DATA RELATED TO SPECIFIC GRAVITY BY ZONES

Zona: B -2

6/12			7/12			8/12			9/12			Average
W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	
5.0	40	0.13	5.2	40	0.13	3.3	35	0.09	20.0	70	0.29	
3.5	40	0.09	5.5	40	0.14	6.3	35	0.18	17.5	80	0.22	
5.5	40	0.14	5.0	40	0.13	6.5	40	0.16	16.5	60	0.28	
		0.12			0.13			0.15			0.26	0.16

Zona: C -1

6/12			7/12			8/12			9/12			Average
W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	
17.0	70	0.24	9.2	80	0.12	6.7	40	0.17	10.5	70	0.15	
8.8	50	0.18	10.8	90	0.12	4.7	35	0.13	10.2	70	0.15	
			6.4	70	0.09	5.9	40	0.15	8.2	60	0.14	
		0.21			0.11			0.15			0.14	0.15

Zona: C -2

6/12			7/12			8/12			9/12			Average
W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	
8.1	40	0.20	8.0	40	0.20	16.0	90	0.18	11.5	45	0.26	
8.0	40	0.20	8.7	40	0.22	15.0	80	0.19	8.9	50	0.18	
10.0	40	0.25	7.7	40	0.19	7.5	43	0.17	11.5	50	0.23	
		0.22			0.20			0.18			0.22	0.21

DATA RELATED TO SPECIFIC GRAVITY BY ZONES

Zona: D -1

6/12			7/12			8/12			9/12			Average
W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	
13.0	80	0.16	10.0	90	0.11	10.0	90	0.11	10.4	100	0.10	
8.0	60	0.13	10.5	90	0.12	8.6	80	0.11	10.0	100	0.10	
11.0	90	0.12	13.0	100	0.13	14.0	90	0.16	9.0	80	0.11	
		0.14			0.12			0.12			0.11	0.12

Zona: D -2

6/12			7/12			8/12			9/12			Average
W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	W (Kg)	V(Lt)	S G (Kg/Lt)	
15.0	90	0.17	11.0	90	0.12	9.0	70	0.13	6.1	40	0.15	
15.5	90	0.17	9.6	80	0.12	6.3	60	0.11	6.3	35	0.18	
18.0	90	0.20	8.2	70	0.12	9.3	60	0.16	9.5	45	0.21	
		0.18			0.12			0.13			0.18	0.15

ANNEX No. 5

DATA RELATED TO THE WASTE COMPONENTS

DATA RELATED TO THE WASTE COMPONENTS

ZONES	A - 1				
Items to be measured	7/12	8/12	9/12	Average	%
	Kg.	Kg.	Kg.	Kg.	
Paper, Cardboard	2.30	0.95	0.75	1.33	24.02
Kitchen garbage	3.40	1.00	1.95	2.12	38.14
Fiber and cloth	0.10		0.50	0.20	3.60
Grasses and trees					
Other combustibles(Wood)					
Plastic	1.40	1.30	0.75	1.15	20.72
Rubber and leather					
Ferrous metals	0.25	0.15	0.15	0.18	3.30
Non ferrous metals					
Glass		0.35	0.90	0.42	7.51
Stones and ceramics					
Other no combustibles(Bone)					
Land		0.45		0.15	2.70
TOTAL	7.45	4.20	5.00	5.55	100.00

ZONES	A - 2					
Items to be measured	6/12	7/12	8/12	9/12	Average	%
	Kg.	Kg.	Kg.	Kg.	Kg.	
Paper, Cardboard	0.60	0.55	0.40	0.35	0.48	6.03
Kitchen garbage	3.50	10.20	4.50	1.40	4.90	62.22
Fiber and cloth	0.10		0.10	0.50	0.18	2.22
Grasses and trees						
Other combustibles(Wood)		0.35			0.09	1.11
Plastic	0.35	0.65	0.60		0.40	5.08
Rubber and leather	0.45	1.40	0.25	0.70	0.70	8.89
Ferrous metals	0.15		0.20		0.09	1.11
Non ferrous metals						
Glass		0.30	0.05		0.09	1.11
Stones and ceramics						
Other no combustibles(Bone)		0.95	1.45	0.25	0.66	8.41
Land	0.55		0.65		0.30	3.81
TOTAL	5.70	14.40	8.20	3.20	7.88	100.00

DATA RELATED TO THE WASTE COMPONENTS

ZONES	B-1					
Items to be measured	6/12	7/12	8/12	9/12	Average	%
	Kg.	Kg.	Kg.	Kg.	Kg.	
Paper, Cardboard	0.60	0.90	1.30	0.75	0.89	13.81
Kitchen garbage	2.00	5.30	3.00	2.00	3.08	47.86
Fiber and cloth	0.10	0.25	0.20	0.10	0.16	2.53
Grasses and trees						
Other combustibles(Wood)						
Plastic	0.55	1.70	1.50	1.40	1.29	20.04
Rubber and leather		0.50	0.15		0.16	2.53
Ferrous metals	0.20	0.50	0.30	0.10	0.28	4.28
Non ferrous metals						
Glass	0.15	0.05	0.30		0.13	1.95
Stones and ceramics						
Other no combustibles(Bone)			0.55	0.45	0.25	3.89
Land				0.80	0.20	3.11
TOTAL	3.60	9.20	7.30	5.60	6.43	100.00

ZONES	B-2					
Items to be measured	6/12	7/12	8/12	9/12	Av.	%
	Kg.	Kg.	Kg.	Kg.	Kg.	
Paper, Cardboard	0.90	0.80	0.80	0.75	0.81	11.09
Kitchen garbage	4.00	3.10	5.00	5.35	4.36	59.56
Fiber and cloth	0.10	0.25	0.50	0.15	0.25	3.41
Grasses and trees						
Other combustibles(Wood)						
Plastic	0.70	0.85	0.95	1.00	0.88	11.95
Rubber and leather						
Ferrous metals	0.40	0.50	0.25	0.20	0.34	4.61
Non ferrous metals						
Glass	0.10	0.15	0.25	0.05	0.14	1.88
Stones and ceramics						
Other no combustibles(Bone)				0.20	0.05	0.68
Land			1.00	1.00	0.50	6.83
TOTAL	6.20	5.65	8.75	8.70	7.33	100.00

DATA RELATED TO THE WASTE COMPONENTS

ZONES	C-1					
Items to be measured	6/12	7/12	8/12	9/12	Av.	%
	Kg.	Kg.	Kg.	Kg.	Kg.	
Paper, Cardboard	0.60	0.85	1.15	0.60	0.80	12.83
Kitchen garbage	2.35	2.75	3.20	1.60	2.48	39.68
Fiber and cloth	0.05		0.20	0.75	0.25	4.01
Grasses and trees						
Other combustibles(Wood)	0.10	0.05			0.04	0.60
Plastic	0.80	0.80	1.80	0.90	1.08	17.23
Rubber and leather						
Ferrous metals	0.30	0.40	0.50	0.35	0.39	6.21
Non ferrous metals						
Glass	0.05			0.10	0.04	0.60
Stones and ceramics				0.10	0.03	0.40
Other no combustibles(Bone)						
Land	1.65	0.50	1.25	1.20	1.15	18.44
TOTAL	5.90	5.35	8.10	5.60	6.24	100.00

ZONES	C-2					
Items to be measured	6/12	7/12	8/12	9/12	Av.	%
	Kg.	Kg.	Kg.	Kg.	Kg.	
Paper, Cardboard	1.45		0.50	0.50	0.61	7.81
Kitchen garbage	2.75	3.00	2.30	1.30	2.34	29.82
Fiber and cloth	0.05	0.10	0.50	0.40	0.26	3.35
Grasses and trees						
Other combustibles(Wood)		0.20			0.05	0.64
Plastic	1.50	1.70	1.25	0.80	1.31	16.75
Rubber and leather						
Ferrous metals	0.80	0.80	0.45	1.20	0.81	10.37
Non ferrous metals						
Glass		0.40	1.30	1.00	0.68	8.61
Stones and ceramics						
Other no combustibles(Bone)						
Land	3.60	3.10	0.40		1.78	22.65
TOTAL	10.15	9.30	6.70	5.20	7.84	100.00

DATA RELATED TO THE WASTE COMPONENTS

ZONES	D-1					
Items to be measured	6/12	7/12	8/12	9/12	Av.	%
	Kg.	Kg.	Kg.	Kg.	Kg.	
Paper, Cardboard	0.35	0.30	1.00	0.30	0.49	7.88
Kitchen garbage	1.00	2.00	4.50	2.00	2.38	38.38
Fiber and cloth	0.10	0.10	0.30	0.30	0.20	3.23
Grasses and trees						
Other combustibles(Wood)				0.10	0.03	0.40
Plastic	1.20	0.55	2.70	1.00	1.36	22.02
Rubber and leather			0.10	0.80	0.23	3.64
Ferrous metals	0.50	0.20	1.10	0.20	0.50	8.08
Non ferrous metals						
Glass		0.15	1.60		0.44	7.07
Stones and ceramics			0.20	0.10	0.08	1.21
Other no combustibles(Bone)				0.10	0.03	0.40
Land	0.50		1.00	0.40	0.48	7.68
TOTAL	3.65	3.30	12.50	5.30	6.19	100.00

ZONES	D-2					
Items to be measured	6/12	7/12	8/12	9/12	Av.	%
	Kg.	Kg.	Kg.	Kg.	Kg.	
Paper, Cardboard	0.50	0.40	0.55	0.40	0.46	5.38
Kitchen garbage	2.80	2.80	8.60	2.00	4.05	47.09
Fiber and cloth	0.20	0.10	0.20	0.10	0.15	1.74
Grasses and trees						
Other combustibles(Wood)			0.05	0.10	0.04	0.44
Plastic	1.85	1.50	1.65	0.90	1.48	17.15
Rubber and leather			0.10	0.40	0.13	1.45
Ferrous metals	1.00	0.50	1.00	0.50	0.75	8.72
Non ferrous metals						
Glass	0.05		0.95	2.30	0.83	9.59
Stones and ceramics		0.40		0.10	0.13	1.45
Other no combustibles(Bone)		0.10	0.10		0.05	0.58
Land	0.40		1.00	0.80	0.55	6.40
TOTAL	6.80	5.80	14.20	7.60	8.60	100.00

ANNEX No. 6

DATA RELATED TO THE COLLECTION IN SCHOOLS AND HOTELS

DATA RELATED TO THE COLLECTION IN SCHOOLS

NAME	Date	Students	Teachers	Administ.	TOTAL	Days collect.	W(Kg.) collect.	W(Kg./day) collect.	Gen. per capita	Average Gen.
C.E.I. 192	1998/12/9	268			268	1	3.7	3.7	0.0138	0.0138
C.E.I. 193	1998/12/9	241			241	3	19.15	6.4	0.0265	0.0265
E.E.P 70010 G.U.E.S.C.	1998/12/7	1198	37	5	1240	1	39.70	39.7	0.0320	
E.E.P 70010 G.U.E.S.C.	1998/12/9	1198	37	5	1240	2	8.80	4.4	0.0035	0.0178
E.E.P.71013 Glorioso San Carlos	1998/12/7	1136	34	1	1171	2	80.80	40.4	0.0345	
E.E.P.71013 Glorioso San Carlos	1998/12/9	1136	34	1	1171	2	25.50	12.8	0.0109	0.0227
C.E.S. Glorioso San Carlos	1998/12/7	1446	71	22	1539	1	3.00	3.0	0.0019	
C.E.S. Glorioso San Carlos	1998/12/9	1446	71	22	1539	2	11.00	5.5	0.0036	0.0028
C.E.S G.U.E. San Carlos	1998/12/7	2445	146	40	2631	2	35.30	11.8	0.0045	
C.E.S G.U.E. San Carlos	1998/12/9	2445	146	40	2631	3	23.90	12.0	0.0045	0.0045

DATA RELATED TO THE COLLECTION IN HOTELS

NAME	Date	Days collect.	Number of guest	W (Kg.) collect.	W(Kg./día) collec.	Gen. per capita
Ferrocarril	1998/12/7	1	20	3.00	3.00	0.15
Ferrocarril	1998/12/9	2	20	4.30	2.15	0.11
			20		2.60	0.13
Italia	1998/12/7	1	25	8.00	8.00	0.32
Italia	1998/12/9	2	13	9.40	4.70	0.35
			19		6.35	0.33

ANNEX No. 7

AVERAGE OF THE WASTE COMPONENTS

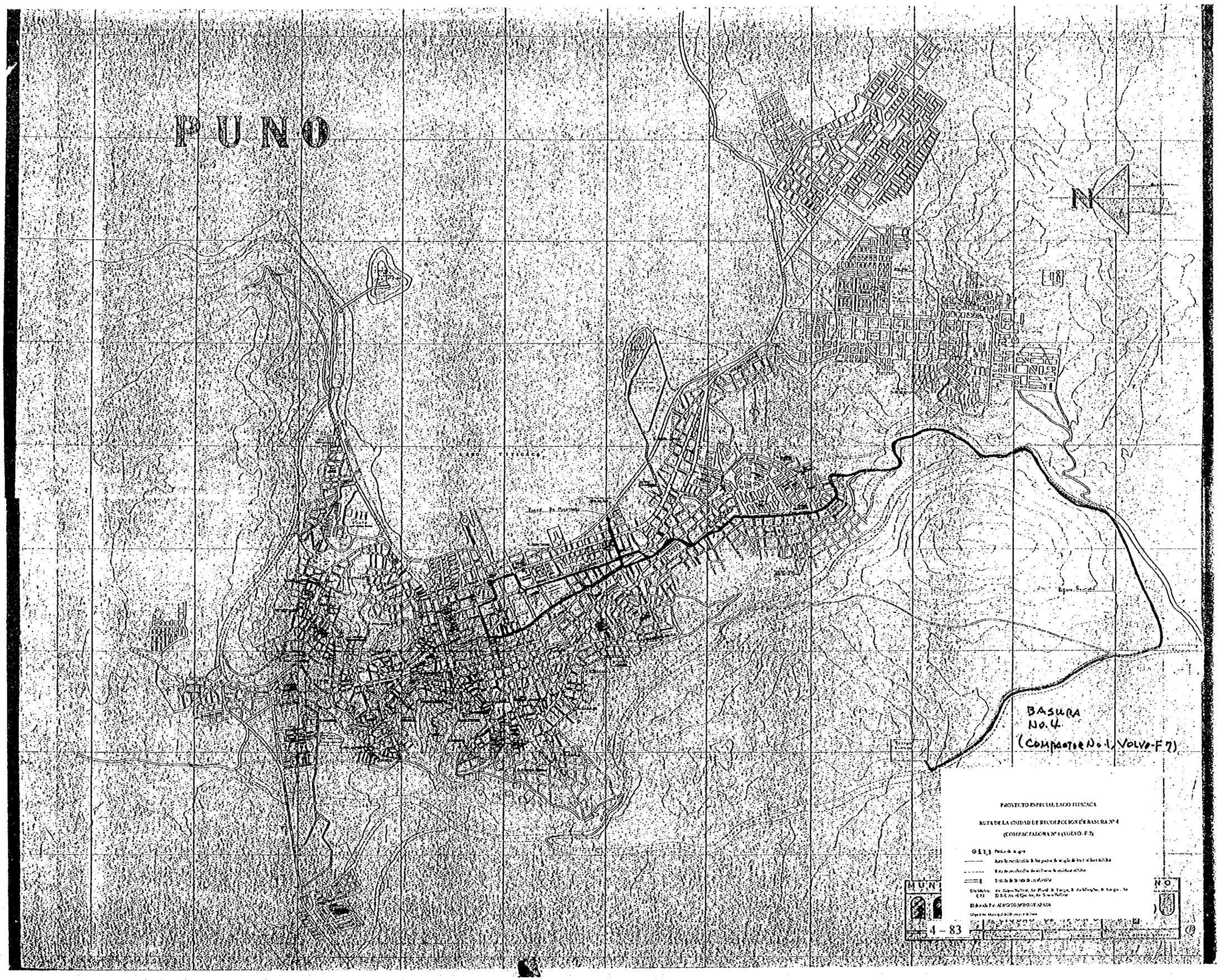
AVERAGE OF THE WASTE COMPONENTS

SAMPLING POINTS	A-1		A-2		B-1		B-2		C-1		C-2		D-1		D-2		Average 1998	
Items to be measured	Av(Kg)	%	Av(Kg)	%	Av(Kg	%	Av(Kg	%	Av(Kg	%	Av(Kg)	%	Av(Kg)	%	Av(Kg)	%	Kg	%
Paper, Cardboad	1.33	24.02	0.48	6.03	0.89	13.81	0.81	11.09	0.80	12.83	0.61	7.81	0.49	7.88	0.46	5.38	0.63	10.36
Kitchen garbage	2.12	38.14	4.90	62.22	3.08	47.86	4.36	59.56	2.48	39.68	2.34	29.82	2.38	38.38	4.05	47.09	2.67	43.73
Fiber and cloth	0.20	3.60	0.18	2.22	0.16	2.53	0.25	3.41	0.25	4.01	0.26	3.35	0.20	3.23	0.15	1.74	0.18	2.87
Grasses and trees																		
Other combustibles(Wood)			0.09	1.11					0.04	0.60	0.05	0.64	0.03	0.40	0.04	0.44	0.03	0.51
Plastic	1.15	20.72	0.40	5.08	1.29	20.04	0.88	11.95	1.08	17.23	1.31	16.75	1.36	22.02	1.48	17.15	1.01	16.53
Rubber and leather			0.70	8.89	0.16	2.53							0.23	3.64	0.13	1.45	0.15	2.50
Ferrous metals	0.18	3.30	0.09	1.11	0.28	4.28	0.34	4.61	0.39	6.21	0.81	10.37	0.50	8.08	0.75	8.72	0.38	6.15
Non ferrous metals																		
Glass	0.42	7.52	0.09	1.11	0.13	1.95	0.14	1.87	0.04	0.60	0.68	8.61	0.44	7.08	0.83	9.59	0.33	5.39
Stones and ceramics									0.03	0.40			0.08	1.21	0.13	1.46	0.03	0.49
Other no combustibles(Bone)			0.66	8.42	0.25	3.89	0.05	0.68					0.03	0.40	0.05	0.58	0.12	2.03
Land	0.15	2.70	0.30	3.81	0.20	3.11	0.50	6.83	1.15	18.44	1.78	22.65	0.48	7.68	0.55	6.40	0.58	9.44
TOTAL	5.55	100.00	7.89	100.00	6.44	100.00	7.33	100.00	6.26	100.00	7.84	100.00	6.22	100.00	8.62	100.00	6.10	100.00

Av = Weigth Average for item in Kilograms

(3) EXISTING COLLECTION ROUTES, 1998 PUNO

PUNO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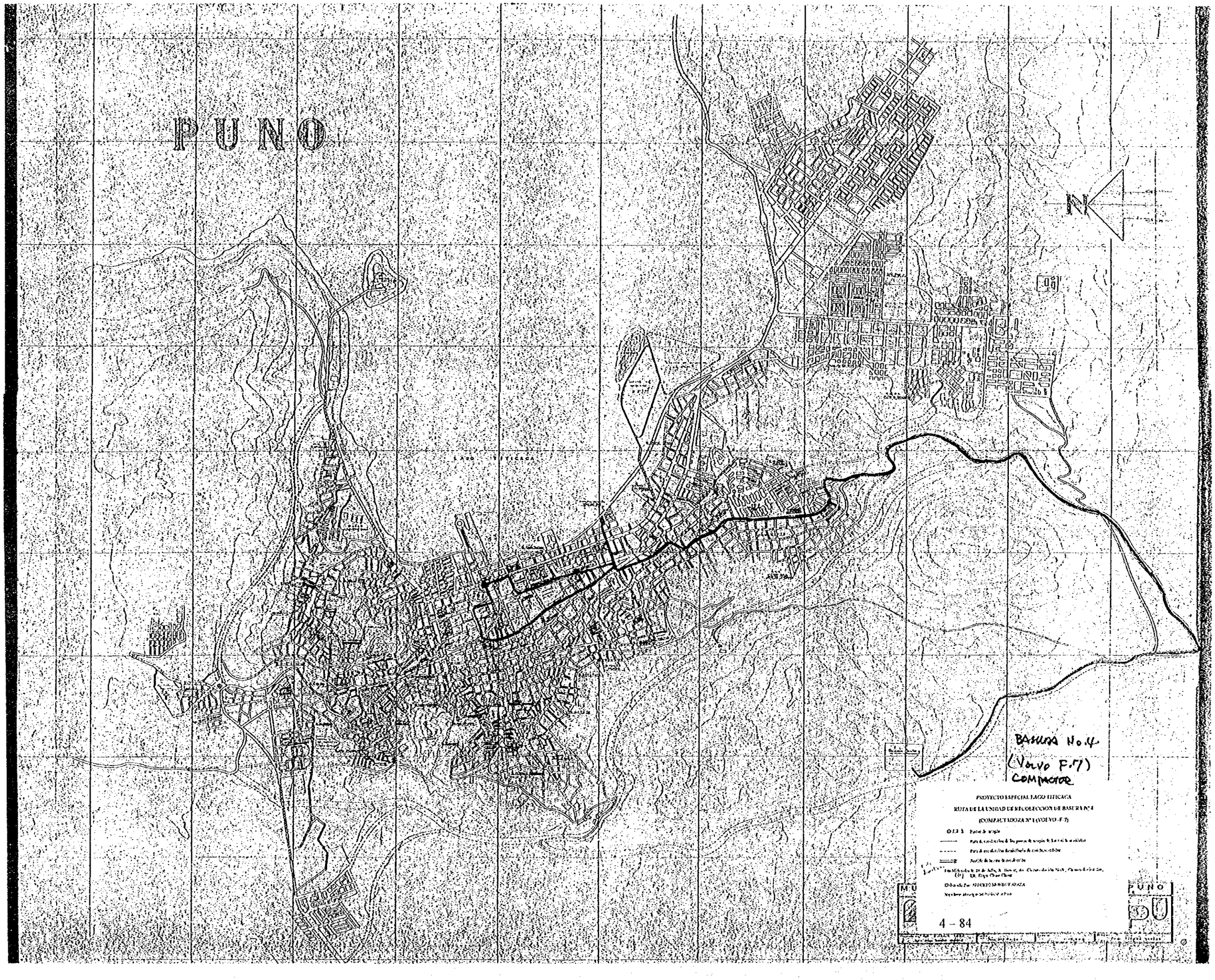
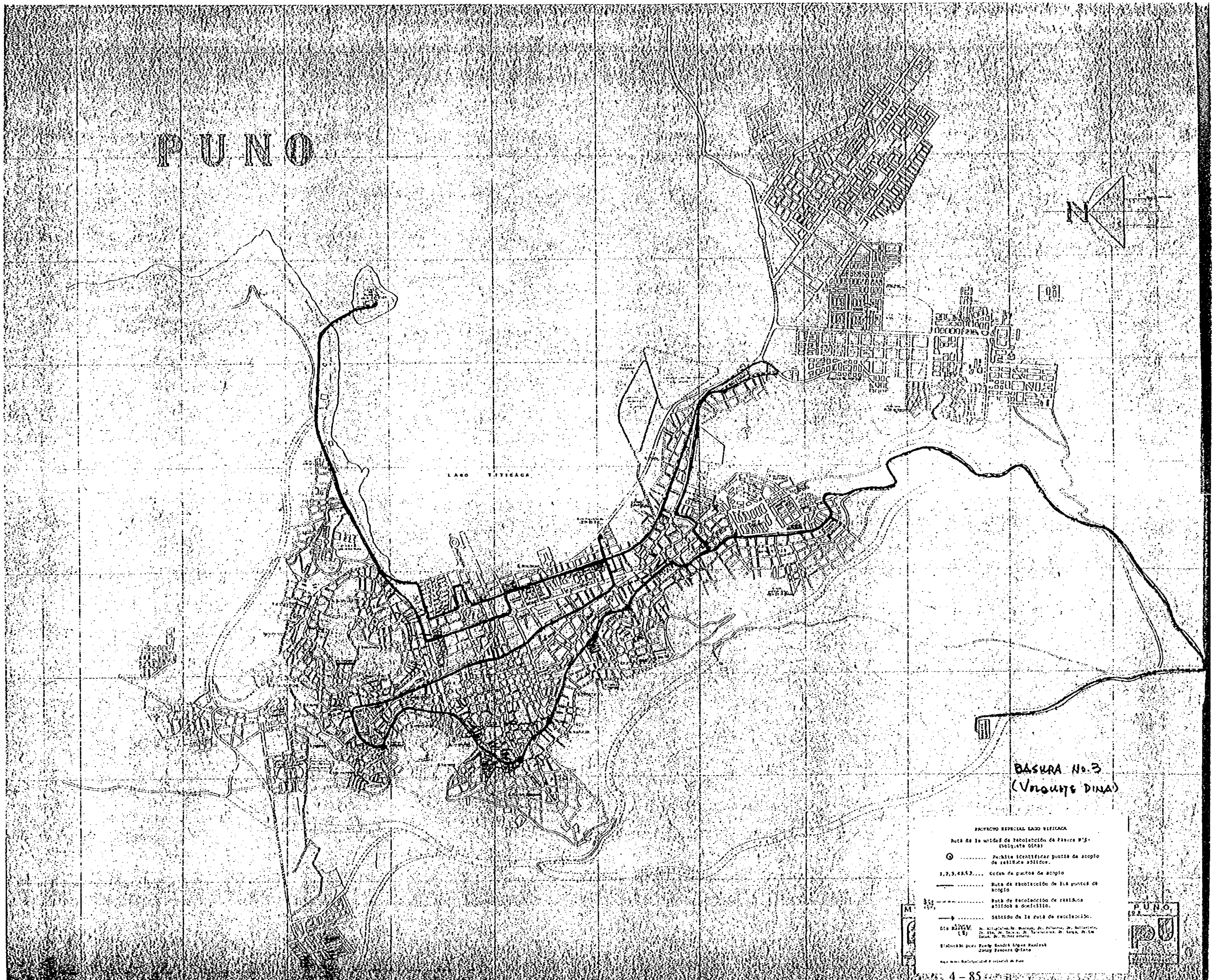
BASURA
No. 4
(COMPACTADORA No. 1, VOLVO-F 7)
PROYECTO ESPECIAL LAGO TITICACA
RUTA DE LA UNIDAD DE RECOLECCION DE BASURA Nº 4
(COMPACTADORA Nº 1 (VOLVO-F 7)

P U N O


N
BASURA No.4
(Volvo F.7)
COMPACTOR
PROYECTO ESPECIAL LAGO TITICACA
RUTA DE LA UNIDAD DE RECOLECCION DE BASURA No 4
(COMPACTADORA No 1 (VOLVO - F-7)
PUNO


PUNO
N
LAGO TITICACA
BASURA No.3
(VOLQUETE DINA)
PROYECTO ESPECIAL LAGO TITICACA
Ruta de la unidad de Recolección de Basura N°3-
(Volquete DINA)
Permite identificar puntos de acopio de residuos sólidos.
Orden de puntos de acopio
Ruta de Recolección de los puntos de acopio
Ruta de Recolección de residuos sólidos a domicilio.
Sentido de la ruta de recolección.
Elaborado por:
PUNO