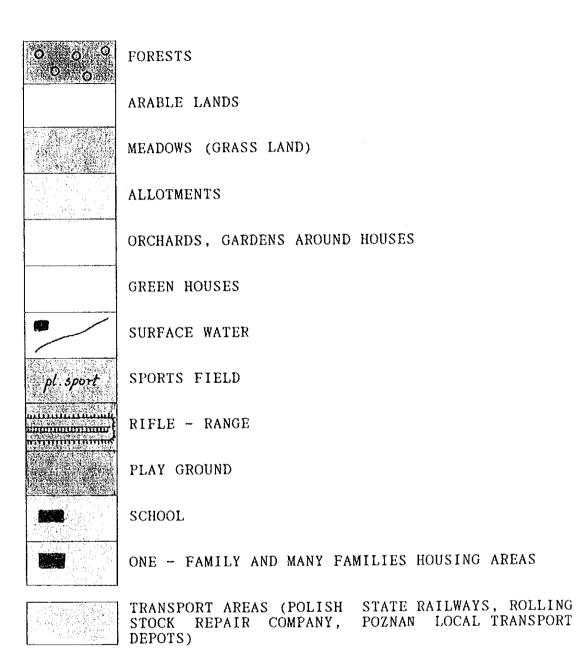
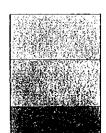


G. Land Use Maps

LEGEND FOR LAND USE





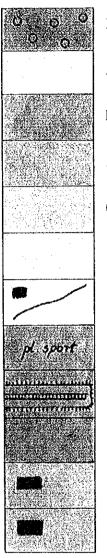
WARENHOUSES, EMPORIA

ROADSFOR VEHICLES, RAILROADS WITH ROADSIDES

WASTE LAND

OOOOOO AFFORESTATION

LEGEND FOR LAND USE



FORESTS

ARABLE LANDS

MEADOWS (GRASS LAND)

ALLOTMENTS

ORCHARDS, GARDENS AROUND HOUSES

GREEN HOUSES

SURFACE WATER

SPORTS FIELD

RIFLE - RANGE

PLAY GROUND

SCHOOL

ONE - FAMILY AND MANY FAMILIES HOUSING AREAS



TRANSPORT AREAS (POLISH STATE RAILWAYS, ROLLING STOCK REPAIR COMPANY, POZNAN LOCAL TRANSPORT DEPOTS)

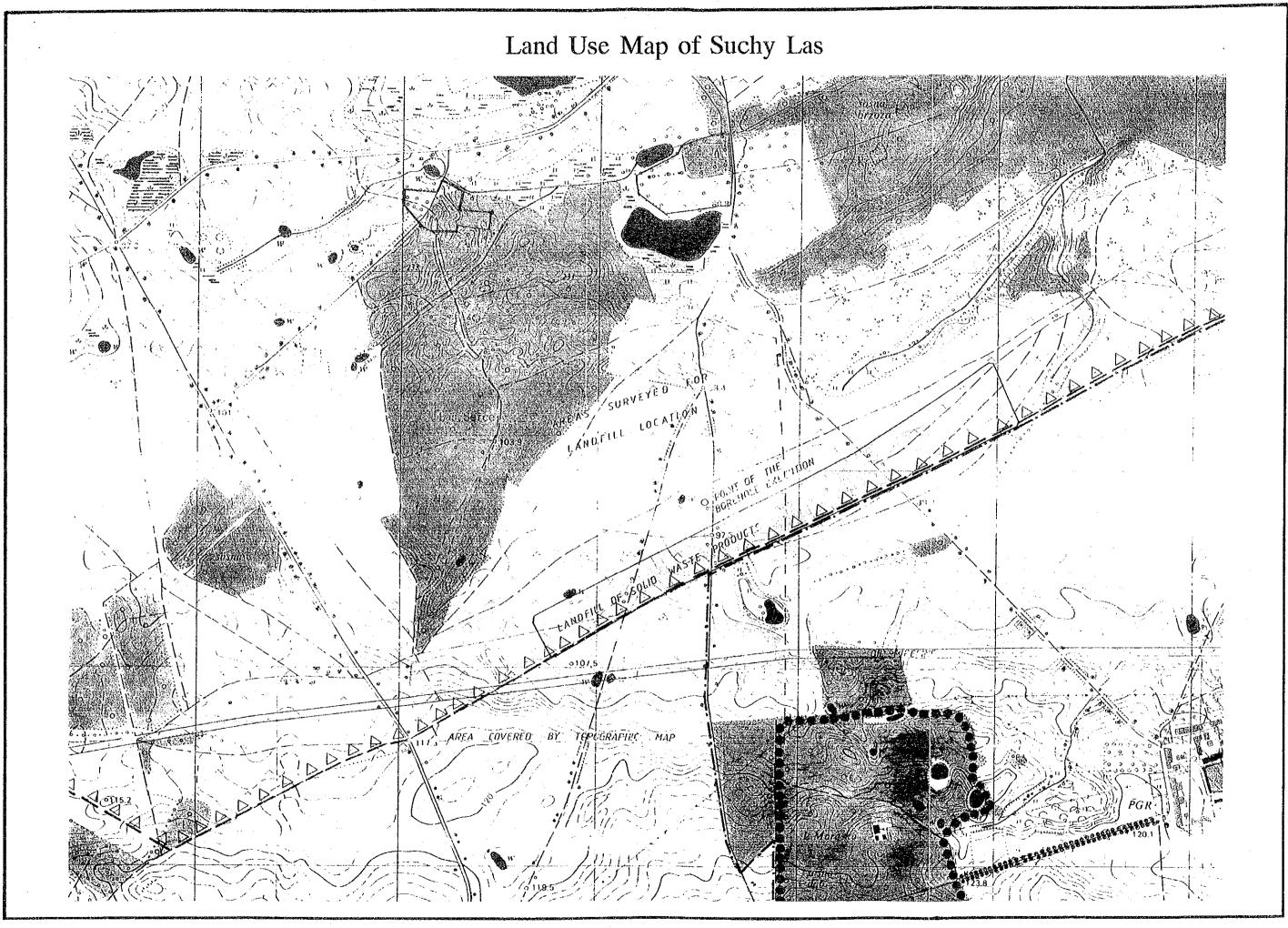


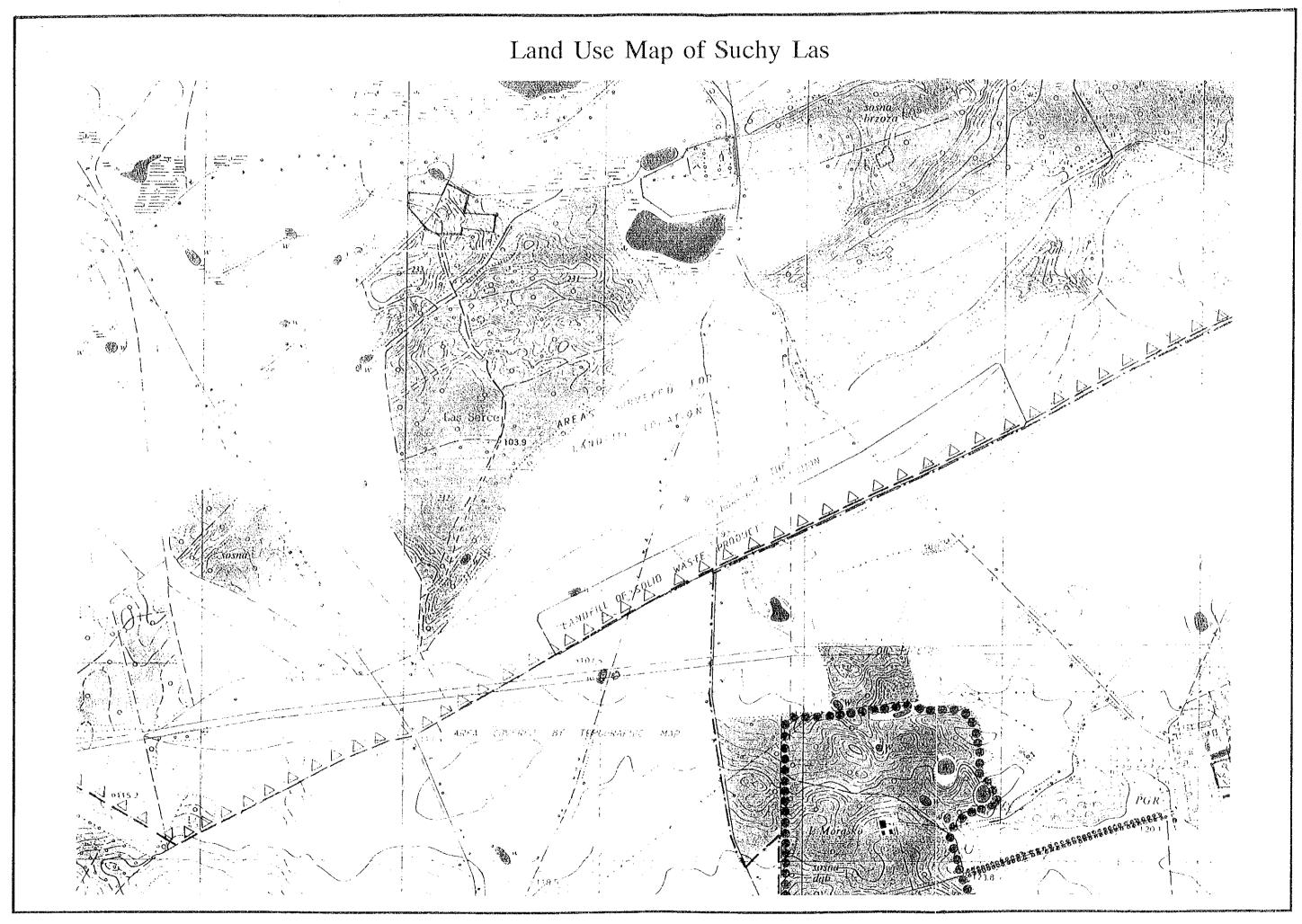
WARENHOUSES, EMPORIA

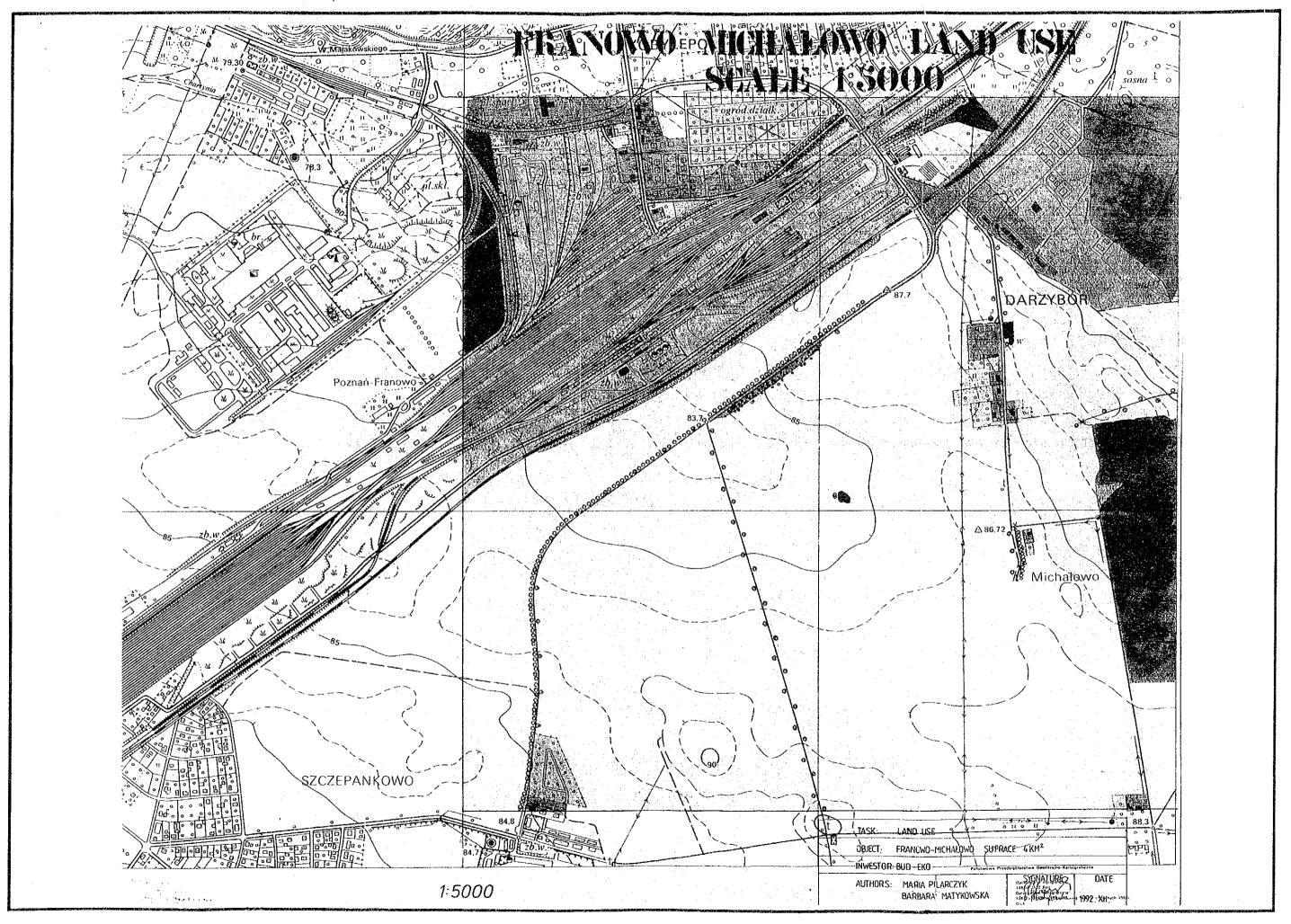
ROADSFOR VEHICLES, RAILROADS WITH ROADSIDES

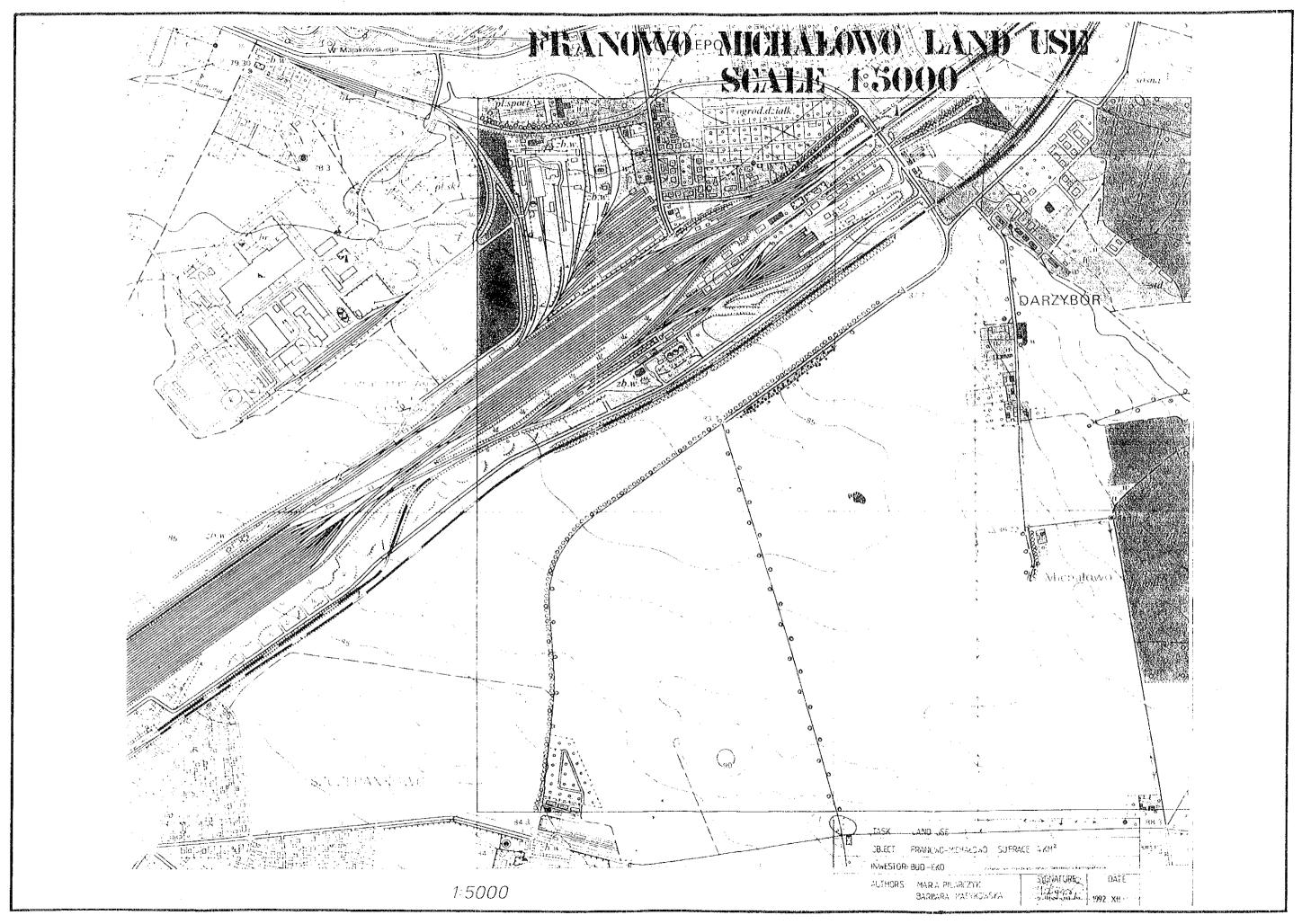
WASTE LAND

AFFORESTATION









H. Survey Results of Public Opinion

I Items filled by Interviewees

Q1-3 Category of House

	Residential Area	Commercial Area
New Apartment Building (after 1945)	46 %	7 %
Old Apartment Building (before 1945)	28 %	90 %
Detached or Semi-Detached House	26 %	3 %



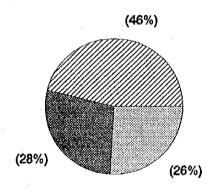
New Building



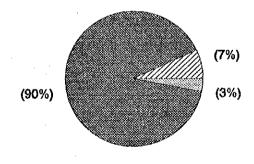
Old Building



Detached Houses



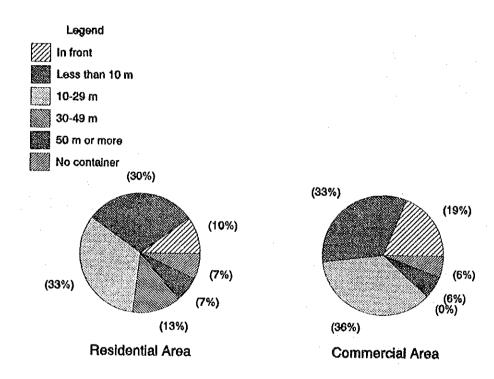
Residential Area



Commercial Area

Q1-4 Distance from the house to communal container of discharge point

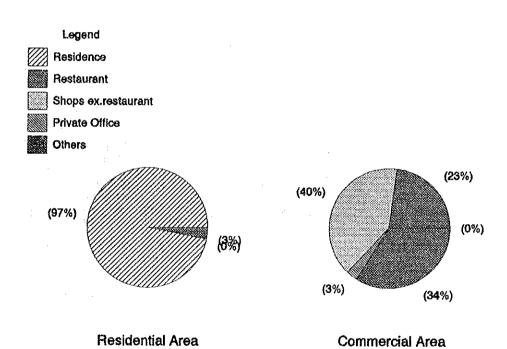
	Residential Area	Commercial Area
In front of the premises	10 %	19 %
Less than 10 m	30 %	33 %
10 – 29 m	33 %	36 %
30 – 49 m	13 %	0 %
50 m or more	7 %	6 %
There is no communal container or dis-	7 %	6 %
charge point in this area.		



II General Questions

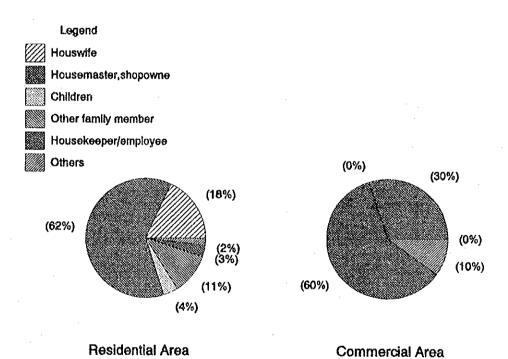
Q2-1 Business Category of the House

	Residential Area	Commercial Area
Residence	97 %	0 %
Restaurant	0 %	23 %
Shops except restaurant	0 %	40 %
Private Office	0 %	3 %
Others	3 %	34 %



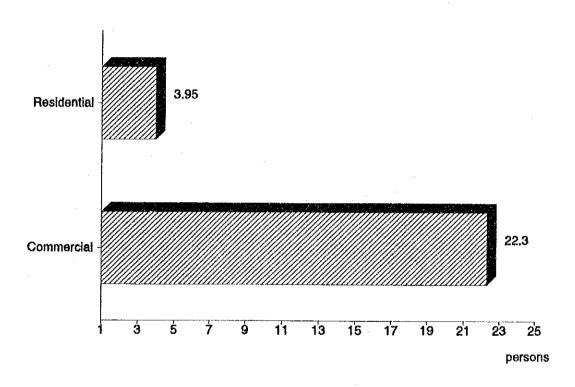
Q2-2 Type of Interviewee

	Residential Area	Commercial Area
Housewife	18 %	0 %
The master of house or owner of shop	62 %	30 %
Children	4 %	0 %
Other family member	11 %	0 %
Housekeeper or employee	3 %	60 %
Others	2 %	10 %



Q2-4 Number of persons staying in the house/shop/office.

	Residential Area	Commercial Area
Number of persons staying	3.95 persons	22.3 persons



Q2-5 Number of dwelling years at this place

	Residential Area	Commercial Area
Less than 5 years	23 %	57 %
5 - 10 years	16 %	7 %
10 - 19 years	26 %	13 %
20 years or more	35 %	23 %

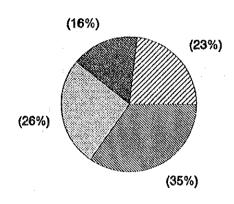


Less than 5 years

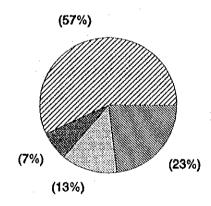
5-10 years

10-19 years

20 years or more



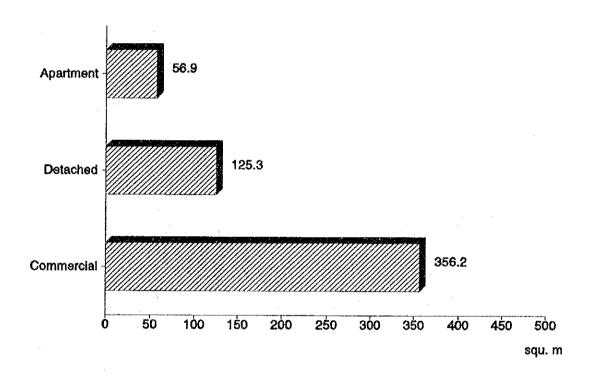
Residential Area



Commercial Area

Q2-6 Area of the house/shop/office

	Residential Area		Commercial
	Apartment	Detached	Arca
Area of the house/shop/office	56.9 m2	125.3 m2	356.5 m2



Heat Supply System Q2-7

	Residential Area	Commercial Area
Municipal Heating Network	64 %	43 %
Stove	22 %	17 %
Gas	11 %	13 %
Others	3 %	27 %

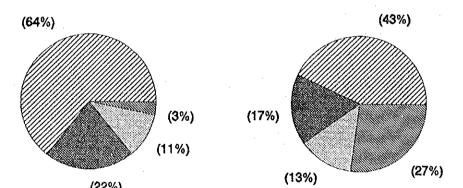


Heating network

Stove

Gas

Others



Residential Area

(22%)

Commercial Area

Q2-8 If so, is the ash collected separately from the other waste?

	Residential Area	Commercial Area	Total
Yes	42 %	75 %	49 %
No	58 %	25 %	51 %

Legend

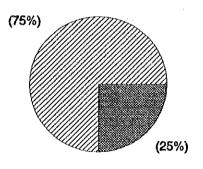


🎇 No

No

(42%)

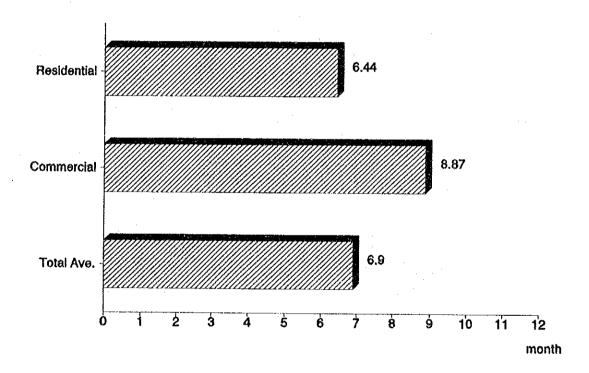
Residential Area



Commercial Area

Q2-9 How many month per year the ash is discharged?

	Residential Area	Commercial Area	Total Average
Discharge month per year	6.44	8.87	6.9



Q2-10 Employment of The Master

	Residential Area	Commercial Area
Public Servant	35 %	40 %
Employee of Private Company	16 %	30 %
Owner of company, shop, etc.	10 %	30 %
No working people	39 %	0 %

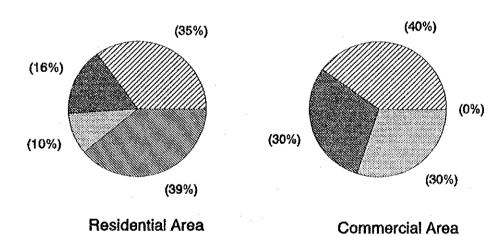
Legend

Public Servant

Private Company

Owner of company

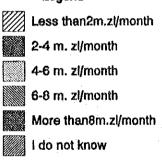
No working people

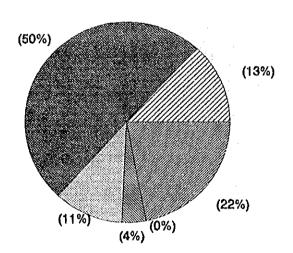


Q2-11 Total expenditure of your family per month

	Residential Area
Less than 2 million zlotych/month	13 %
2 - 4 million zlotych/month	50 %
4 - 6 million zlotych/month	11 %
6 - 8 million zlotych/month	4 %
More than 8 million zlotych/month	0 %
I don't know.	22 %

Legend





Residential Area

M Questions on Discharge of Waste from Your House

Q3-1 Do you discharge ash from your heating equipment?

	Residential Area	Commercial Area
Yes	35 %	27 %
No	65 %	73 %

If yes, please answer 3-2 and 3-3.

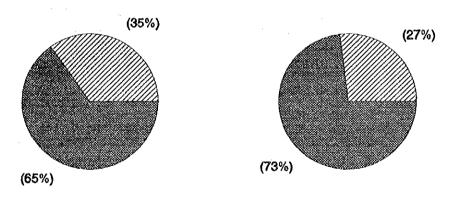
Legend



Yes



MO



Residential Area

Commercial Area

Q3-2 Do you discharge ash with other mode of wastes?

	Residential Area	Commercial Area
Yes	79 %	17 %
No	21 %	83 %

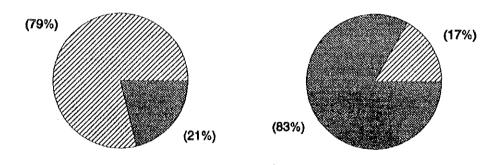
Legend



Yes



No

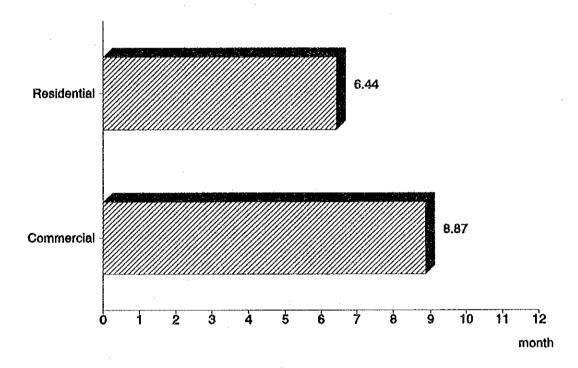


Residential Area

Commercial Area

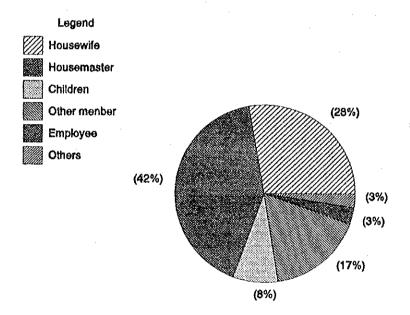
Q3-3 How many months per year do you discharge ash?

	Residential Area	Commercial Area
month per year	6.44	8.87



Q3-4 Who discharge waste from your house?

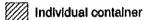
	Residential Area
Housewife	28 %
The master	42 %
Children	8 %
Other family member	17 %
Guardian or employee	3 %
Others	3 %



3-5 Where do you discharge waste from your house?

	Residential Area	Commercial Area
Individual container	33 %	37 %
Communal container	63 %	50 %
Dust chute	3 %	0 %
Others	1 %	13 %

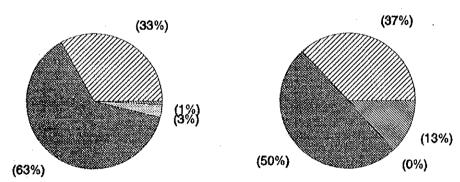




Communal container

Dust chute

Others



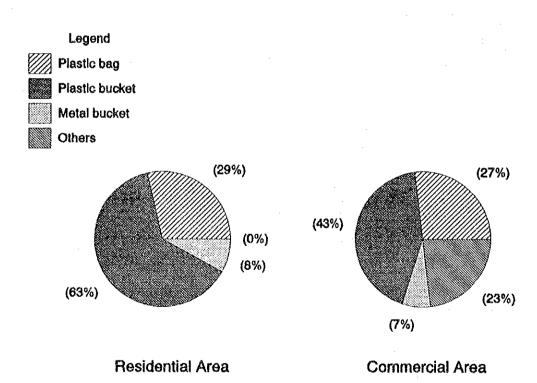
Residential Area

Commercial Area

Q3-6 What type of container do you use for carrying waste to discharge point in question No.3-5?

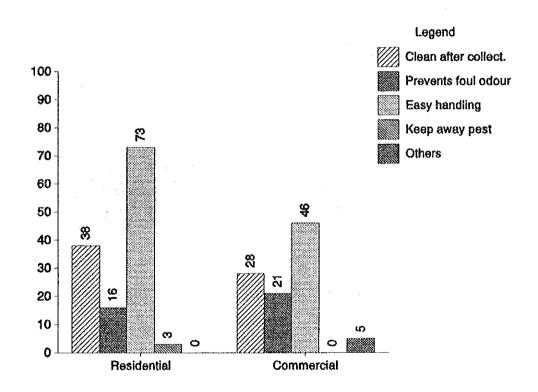
	Residential Area	Commercial Area
Plastic bag	29 %	27 %
Plastic bucket	63 %	43 %
Metal bucket	8 %	7 %
Others	0 %	23 %

Within the replies of "Others", more than half interviewees replied for "Cardboard".



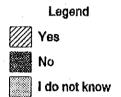
Q3-7 Why do you use it? (Prural answers were made by interviewee.

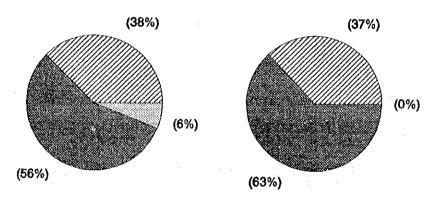
	Residential Arca	Commercial Area
It is clean after collection work.	38 %	28 %
It prevents foul odor.	16 %	21 %
It is easy handling.	73 %	46 %
Keep away pest such as flies.	3 %	0 %
Others	0 %	5 %



Q3-8 Do you discharge waste at fixed time?

	Residential Area	Commercial Area
Yes	38 %	37 %
No	56 %	63 %
I don't know.	6 %	0 %



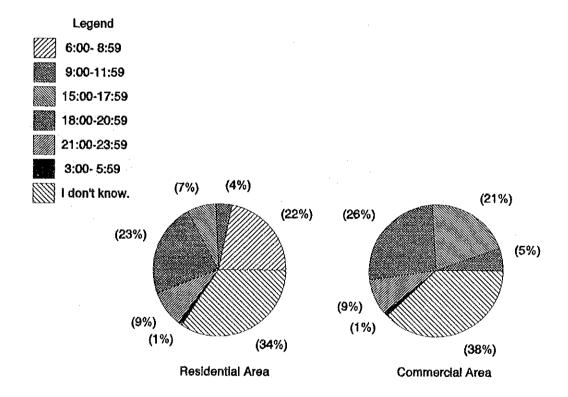


Residential Area

Commercial Area

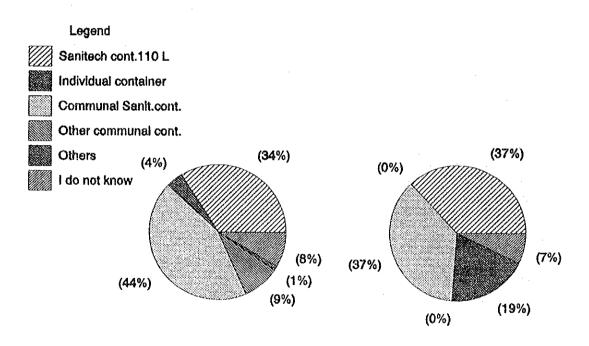
Q3-9 If "Yes", what time do you usually discharge your waste?

	Residential Area	Commercial Area
6:00 - 8:59	22 %	0 %
9:00 - 11:59	4 %	5 %
12:00 - 14:59	0 %	0 %
15:00 - 17:59	7 %	19 %
18:00 - 20:59	23 %	24 %
21:00 - 23;59	9 %	8 %
24:00 - 2:59	0 %	0 %
3:00 - 5:59	1 %	1 %
I don't know.	34 %	35 %



Q3-10 What type of container do you use for waste collection?

	Residential Area	Commercial Area
Individual container of the Sanitech (110 liter)	34 %	37 %
Individual container other than the one of Sanitech	4 %	0 %
Communal container of the Sanitech	44 %	37 %
Communal container other than the one of Sanitech	9 %	0%
Others	1 %	19 %
I don't know.	8 %	7 %



Residential Area

Commercial Area

Q3-11 Where is your container for waste collection located?

	Residential Area	Commercial Area
In front of my premises	36 %	24 %
Behind the premises	20 %	17 %
Communal container yard of the building	43 %	59 %
Curb side near my building	1 %	0 %

Legend



In front of premises



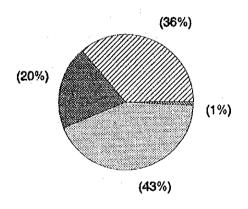
Behind the premises



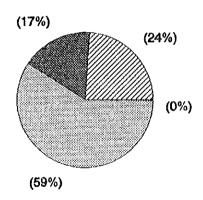
Communal cont. yard



Curb side near house



Residential Area



Commercial Area

Q3-12 Do you have any problems of your container for waste collection?

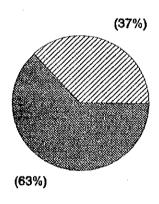
	Residential Area	Commercial Area
Yes	37 %	38 %
No	63 %	62 %

If yes, please answer to the question No.3-13.

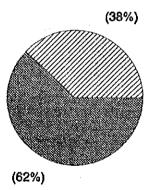
Legend



No



Residential Area

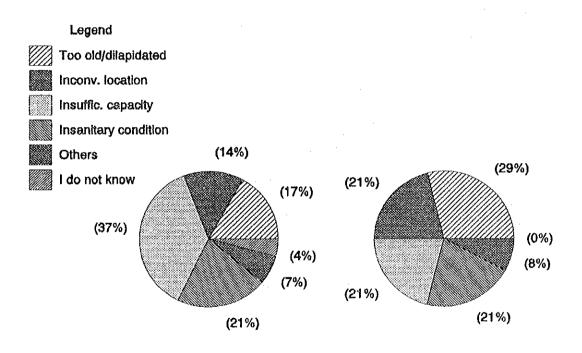


Commercial Area

Q3-13 What is the problem(s) of your container(s)?

	Residential Area	Commercial Area
Too old and dilapidated	17 %	29 %
Inconvenient location	14 %	21 %
Insufficient capacity	37 %	21 %
Insanitary condition	21 %	21 %
Others	7 %	8 %
I don't know.	4 %	0 %

If you answer 3.dust chute to the question No.3-5, please answer to the question No.3-14 and No.3-15.

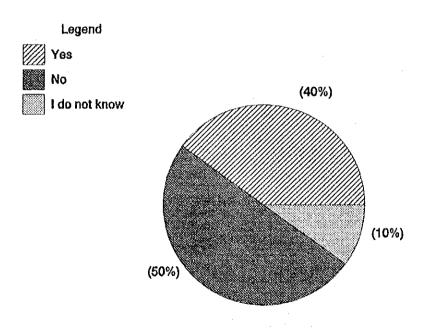


Residential Area

Commercial Area

Q3-14 Are you able to co-operate to carry your waste to communal containers fixed in your areas without using dust chute, if you are requested so.

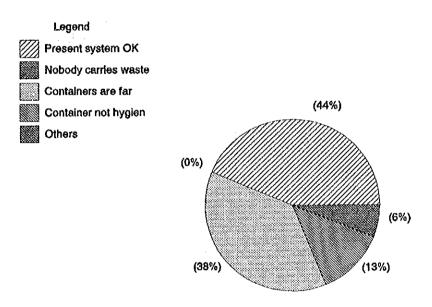
	Residential Area	
Yes	40 %	
No	50 %	
I don't know.	10 %	



Residential Area

Q3-15 If "No", what are the reasons?

	Residential Area
Present system is better.	44 %
We have nobody who will carry the waste	0 %
to communal containers.	
Communal containers are far.	38 %
Communal containers are not hygicnic.	13 %
Others	6 %

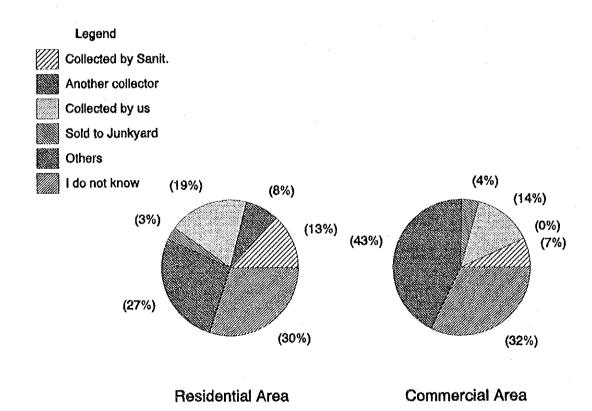


Residential Area

Q3-16 How are your bulky wastes disposed? (such as large condemned furniture or electric appliances)

	Residential Area	Commercial Area
Collected by the Sanitech	13 %	7 %
Sold and/or collected by special collector	8 %	0 %
Carry to landfill site by ourselves	19 %	14 %
Sold to Junkyard	3 %	4 %
Others	27 %	43 %
I don't know.	30 %	32 %

Within the replies of "Others", the most interviewee replied to discharge bulky waste by containers.



IV Questions on Services of Waste Collection in Your Area

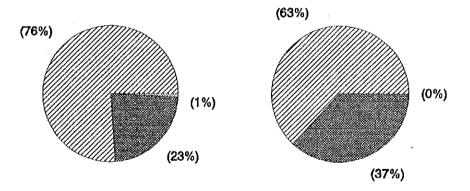
Q4-1 Is there a collection service in your area?

	Residential Area		Commercial	
	Apartment	Detached	Total	Arca
Yes	76 %	63 %	87 %	100 %
No	23 %	37 %	12 %	0 %
I don't know.	1 %	0 %	1 %	0 %

23 % of residents answered "no collection service", however, it is not possible. This is considered to be due to the lack of consciouness.

If "Yes", please answer the followings; (No.4-2 - No.4-9), otherwise go to .V

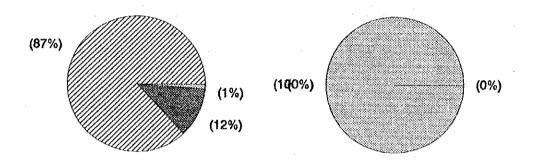
Legend
Yes
No
I do not know



Residential; apartment

Residential; detached

Legend Yes No I do not know



Total resident, area

Commercial area

Q4-2 Who collects your wastes?

	Residential Area	Commercial Area
Sanitech	72 %	84 %
Private contractor sub-contracted by	14 %	3 %
Sanitech		
Private contractor other than the above	12 %	0 %
Others	2 %	13 %

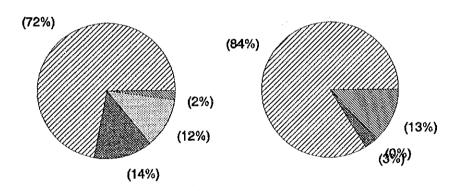


Sanitech

Private contractor

Other private contr.

Others

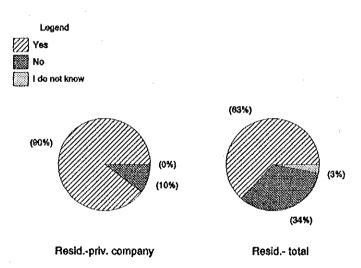


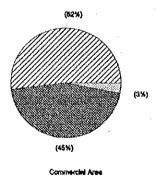
Residential Area

Commercial Area

Q4-3 Are you satisfied with the collection service?

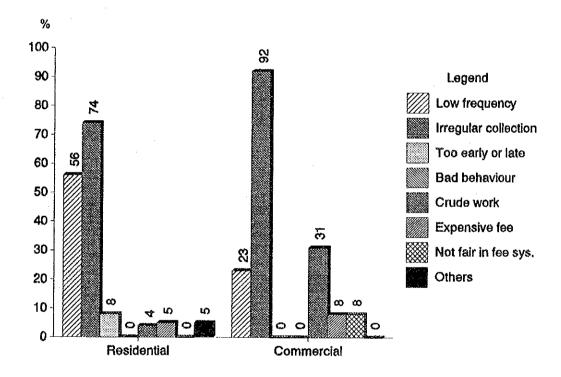
	Residential Area		Commercial
	Private company	Total	Area
Yes	90 %	63 %	52 %
No	10 %	34 %	45 %
I don't know.	0 %	3 %	3 %





Q4-4 If "No", what are the reasons? (Multi answer)

	Residential Area	Commercial Area
Frequency of collection service is low. Collection time is irregular.	56 %	23 %
Collection time is very early or late.	8 %	92 % 0 %
Behavior of workers are bad. Collection work is crude.	0 % 4 %	0 % 31 %
Collection fee is expensive.	5 %	8 %
Collection fee system is not fair. Others	U % 5 %	0 %

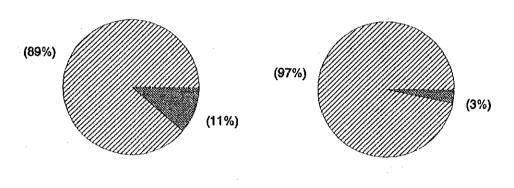


Q4-5 Do you know how the waste discharged from your house is collected?

	Residential Area	Commercial Area
Yes	89 %	97 %
No	11 %	3 %

Legend Yes

No.

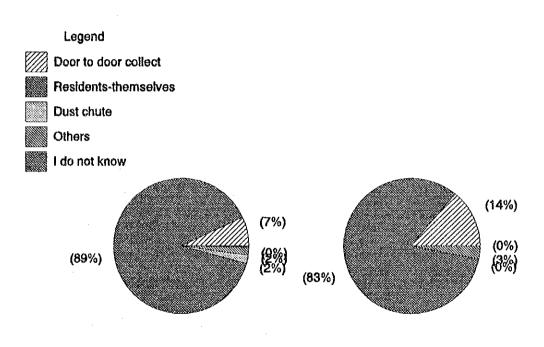


Residential Area

Commercial Area

Q4-6 If "Yes", how is the waste collected?

	Residential Area	Commercial Area
Door to door collection system by collection worker.	7 %	14 %
Residents, themselves carry waste to a communal container.	89 %	83 %
Collection from dust chute in the building.	2 %	0 %
Others	2 %	3 %
I don't know.	0 %	0 %

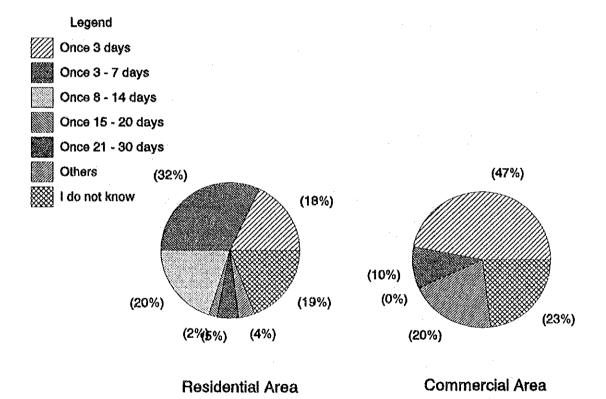


Commercial Area

Q4-7 How often is your waste collected?

	Residential Area	Commercial Area
Once 3 days	18 %	47 %
Once 3 - 7 days	32 %	10 %
Once 8 - 14 days	20 %	0 %
Once 15 - 20 days	2 %	0 %
Once 21 - 30 days	5 %	0 %
Others	4 %	20 %
I don't know.	19 %	23 %

Within the replies of "Others", the most interviewees replied to have more frequent waste collection services.



Q4-8 Is collection service done at fixed time in the day?

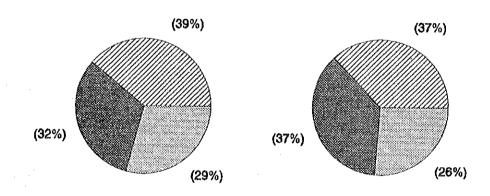
	Residential Area	Commercial Area
Yes	39 %	37 %
No	32 %	37 %
I don't know.	29 %	26 %



No

N

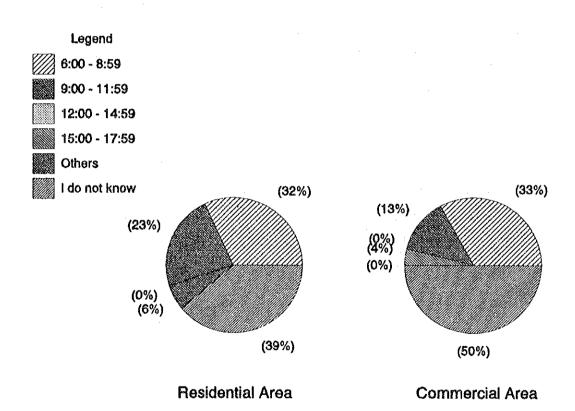
I do not know



Commercial Area

Q4-9 If "Yes", what time is your waste normally collected?

	Residential Area	Commercial Area
6:00 - 8:59	32 %	33 %
9:00 - 11:59	23 %	13 %
12:00 - 14:59	0 %	0 %
15:00 - 17:59	0 %	4 %
Others	6 %	0 %
I don't know.	39 %	50 %



V Questions on Resource Recovery and Recycling

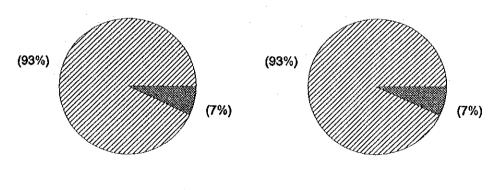
Q5-1 If the municipality introduces a separate waste collection system to utilize waste (i.e. for instance you are requested to segregate your wastes into i. food waste, ii. incombustible waste and iii. other wastes), do you cooperate with the system?

	Residential Area	Commercial Area
Yes	93 %	93 %
No	7 %	7 %

Legend

Yes

No

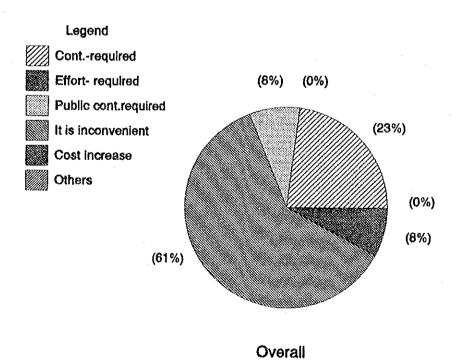


Residential Area

Commercial Area

Q5-2 If "No", what are the reasons?

	Overall
It requires several containers or plastic bags.	23 %
It requires certain effort.	0 %
It requires several public containers.	8 %
It is inconvenient.	61 %
It may increase collection cost.	8 %
Others	0 %



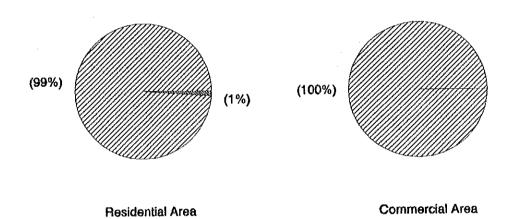
Q5-3 Do you think resource recovery from wastes and recycling are necessary?

	Residential Area	Commercial Area
Yes	99 %	100 %
No	1 %	0 %

Legend

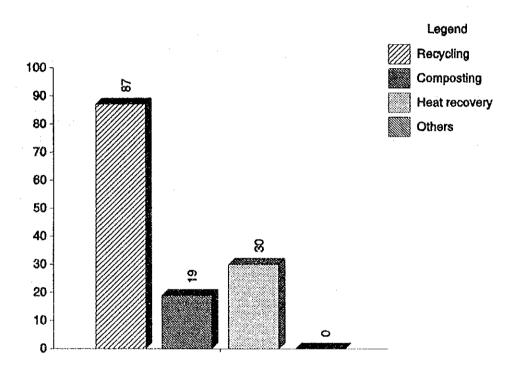


No



Q5-4 What kinds of resource recovery from wastes and recycling do you know? (Reply as many as you know)

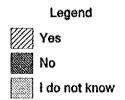
	Overall
Recycling of reusable materials such as papers,	87 %
bottles, etc.	
Composting (Fertilizer from wastes)	19 %
Heat recovery by incineration	30 %
Others	0 %

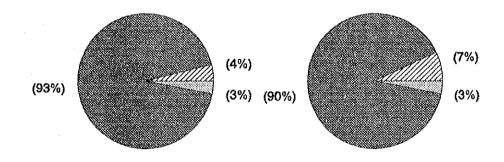


Q5-5 Do you have someone who comes around to collect or buy your reusable or recyclable materials?

		Commercial Area
Yes	4 %	7 %
No	93 %	90 %
I don't know.	3 %	3 %

If "Yes", please answer the followings; (No.5-6 - No.5-7). Otherwise go to No.5-8.



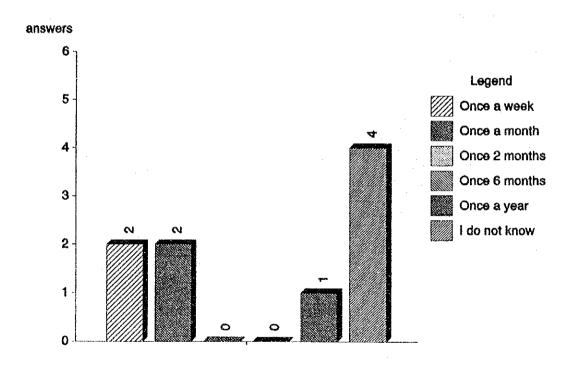


Residential Area

Commercial Area

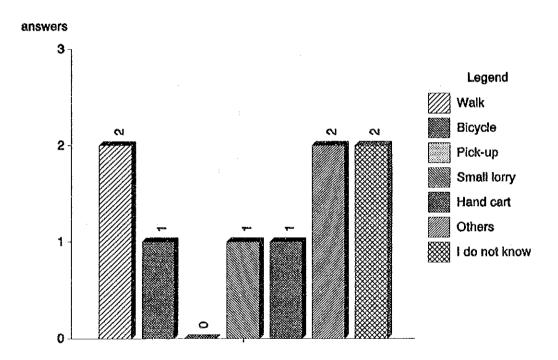
Q5-6 If "Yes", how often does the collector comes around your place?

	Residential Area	
Once a week	2 answers	
Once a month	2 answers	
Once every two month	0 answer	
Once a half year	0 answer	
Once a year	1 answer	
I don't know.	4 answers	



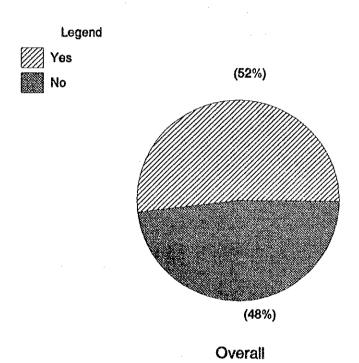
Q5-7 What kinds of transportation does the collector use to haul them?

	Overall
Walk	2
Bicycle	1
Pick-up Truck	0
Small Lorry	1
Handcart	1
Others	2
I don't know.	2



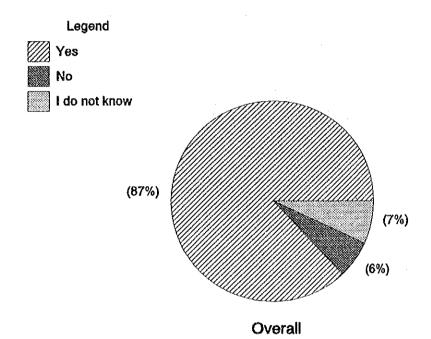
Q5-8 Instead of selling recyclable materials to the collector, do you sell the recyclable materials to the shops?

	Overall
Yes	52 %
No	48 %



Q5-9 If the resident association of cooperative in your area were to raise some funds (in order to engage beneficial activities for residents), through sale of reusable of recyclable materials, would you be able to contribute or participate?

	Overall
Yes	87 %
No	6 %
I don't know.	7. %



Q5-10 Do you feed food wastes to your animals?

	Overall
Yes	23 %
No	77 %

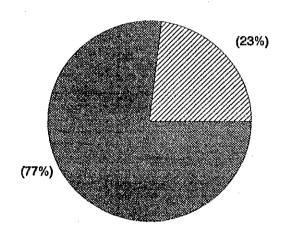
Legend



Yes



No

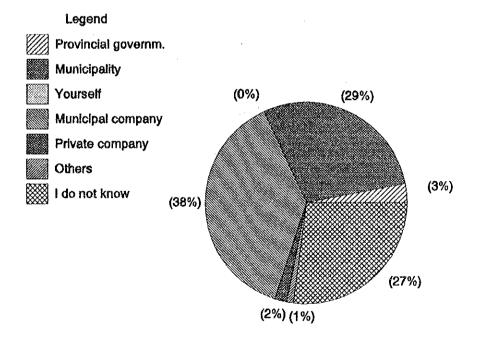


Overall

VI Collection Fee and Financial Matters

Q6-1 Do you know which authority is responsible for Municipal Solid Waste Management?

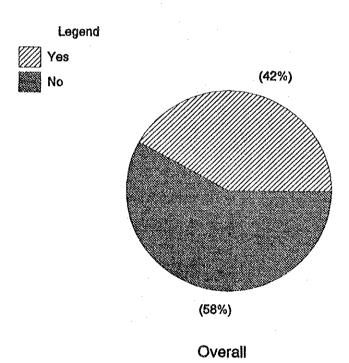
	Residential Area
Provincial government	3 %
Municipality	29 %
Yourself	0 %
Municipal company (public) for example Sanitech	38 %
Private company	2 %
Others	1 %
I don't know.	27 %



Residential Area

Q6-2 The present Municipal Solid Waste Management is being carried out by the Sanitech, municipality and private companies. Do you think the present MSWM is appropriate?

	Overall
Yes	42 %
No	58 %



Q6-3 If "No", what organization should take responsibility on MSWM?

	Residential Area	Commercial Area
Municipality	28 %	8 %
Provincial government	0 %	4 %
Sanitech	22 %	45 %
Private company	43 %	35 %
Others	7 %	8 %

Legend Municipality Provincial governm. Sanitech Private company Others (0%) (45%) (28%) (22%) (4%) (8%) (7%) (8%) (43%) (35%)

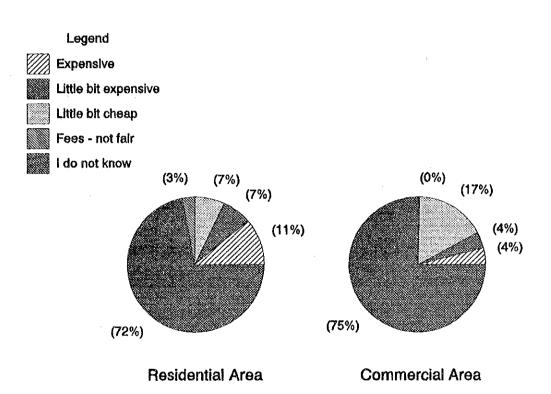
Commercial Area

Q6-4 How much do you pay for the collection service per a month?

The answers to this question are varied and any trend could not be found.

Q6-5 How do you think about collection fee?

	Residential Area	Commercial Area
Expensive	11 %	4 %
Little bit expensive	7 %	4 %
Little bit cheap	7 %	17 %
Collection fee system is not fair.	3 %	0 %
I don't know.	72 %	75 %



Q6-6 Do you pay the collection fee directly to the collection company or through your cooperative?

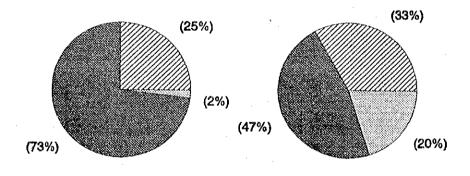
	Residential Area	Commercial Area
Directly (by yourself)	25 %	33 %
Through the Cooperative	73 %	47 %
I don't know.	2 %	20 %



Directly-yourself

Cooperative

I do not know



Commercial Area

Q6-7 Who or how collect the fee?

	Residential Area	Commercial Area
Through bank account	24 %	50 %
With the other payment to the Cooperative	71 %	50 %
Cashier of enterprises	3 %	0 %
Others	3 %	0 %

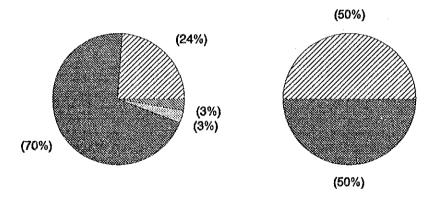
Legend

Bank account

to Corporative

to Enterprise

Others



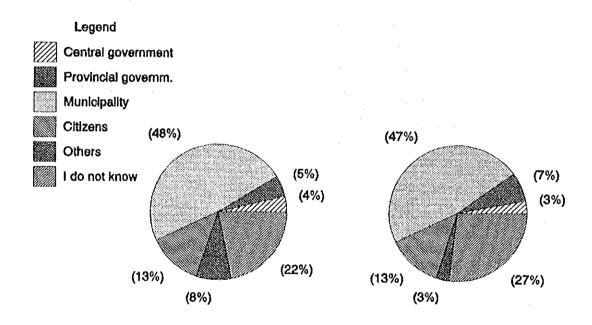
Residential Area

Commercial Area

Q6-8 The present waste management cost is not sufficient for maintaining the beautiful sight of the City and its environment. Do you think who should bear the extra cost?

	Residential Area	Commercial Area
Central government	4 %	3 %
Provincial government	5 %	7 %
Municipality	48 %	47 %
Citizens by means of collection fee increase	13 %	13 %
Others	8 %	3 %
I don't know.	22 %	27 %

Within the replies of "Others", more than half interviewees replied for "Board of District "



Residential Area

Commercial Area

VII Public Cooperation

Q7-1 Have you ever had any guidance of methods of proper discharge?

	Residential Area	Commercial Area
Yes	6 %	17 %
No	94 %	83 %

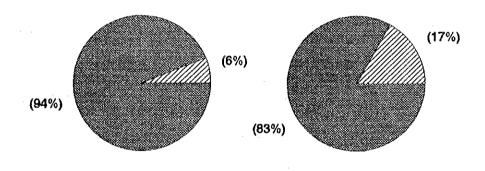
Legend



Yes



No



Commercial Area

Q7-2 Do you think "Clean Day" should be organized?

A Company of the Comp	Residential Area	Commercial Area
Yes	68 %	63 %
No	19 %	27 %
I don't know.	13 %	10 %

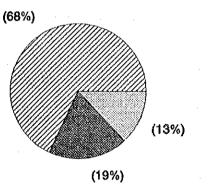


/// Yes

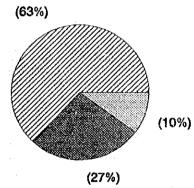
No

...

I do not know



Residential Area

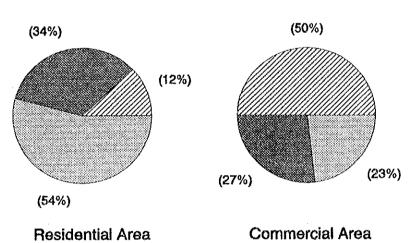


Commercial Area

Q7-3 Does anyone in your family clean the road shoulder or adjacent public area in front of your house except for as the guardian?

	Residential Area	Commercial Area
Yes, everyday	12 %	50 %
Yes, sometimes	34 %	27 %
No	54 %	23 %





Q7-4 Do you think the public cooperation is necessary in order to maintain the beautiful city and its environment?

	Residential Area	Commercial Area
Yes	91 %	100 %
No .	5 %	0 %
I don't know	4 %	0 %

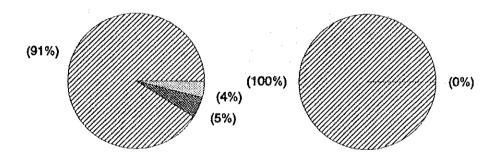
Legend

//// Y

₩ N

No

I do not know



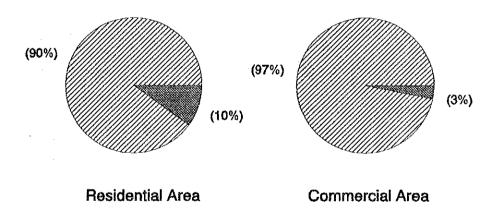
Residential Area

Commercial Area

Q7-5 If "Yes", can you cooperate with maintaining the beautiful city and its environment?

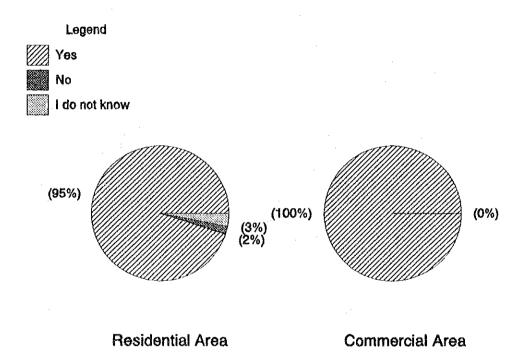
	Residential Area	Commercial Area
Yes	90 %	97 %
No	10 %	3 %





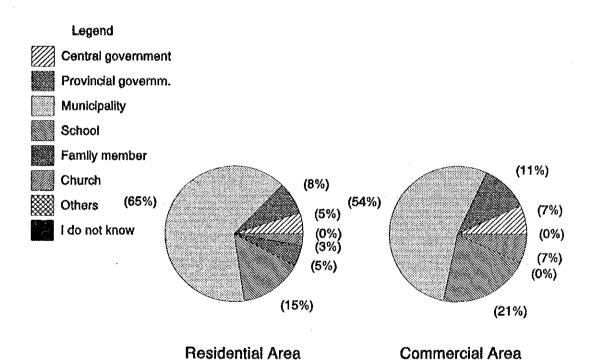
Q7-6 Do you think public education of campaign for maintaining the beautiful city and its environment is necessary?

	Residential Area	Commercial Area
Yes	95 %	100 %
No	2 %	0 %
I don't know	3 %	0 %



Q7-7 If "Yes", who should take such action?

	Residential Area	Commercial Area
Central government	5 %	7 %
Provincial government	8 %	11 %
Municipality	66 %	54 %
School	15 %	21 %
Family member	5 %	0 %
Church	3 %	7 %
Others	0 %	0 %
I don't know.	0 %	0 %



H - 63

