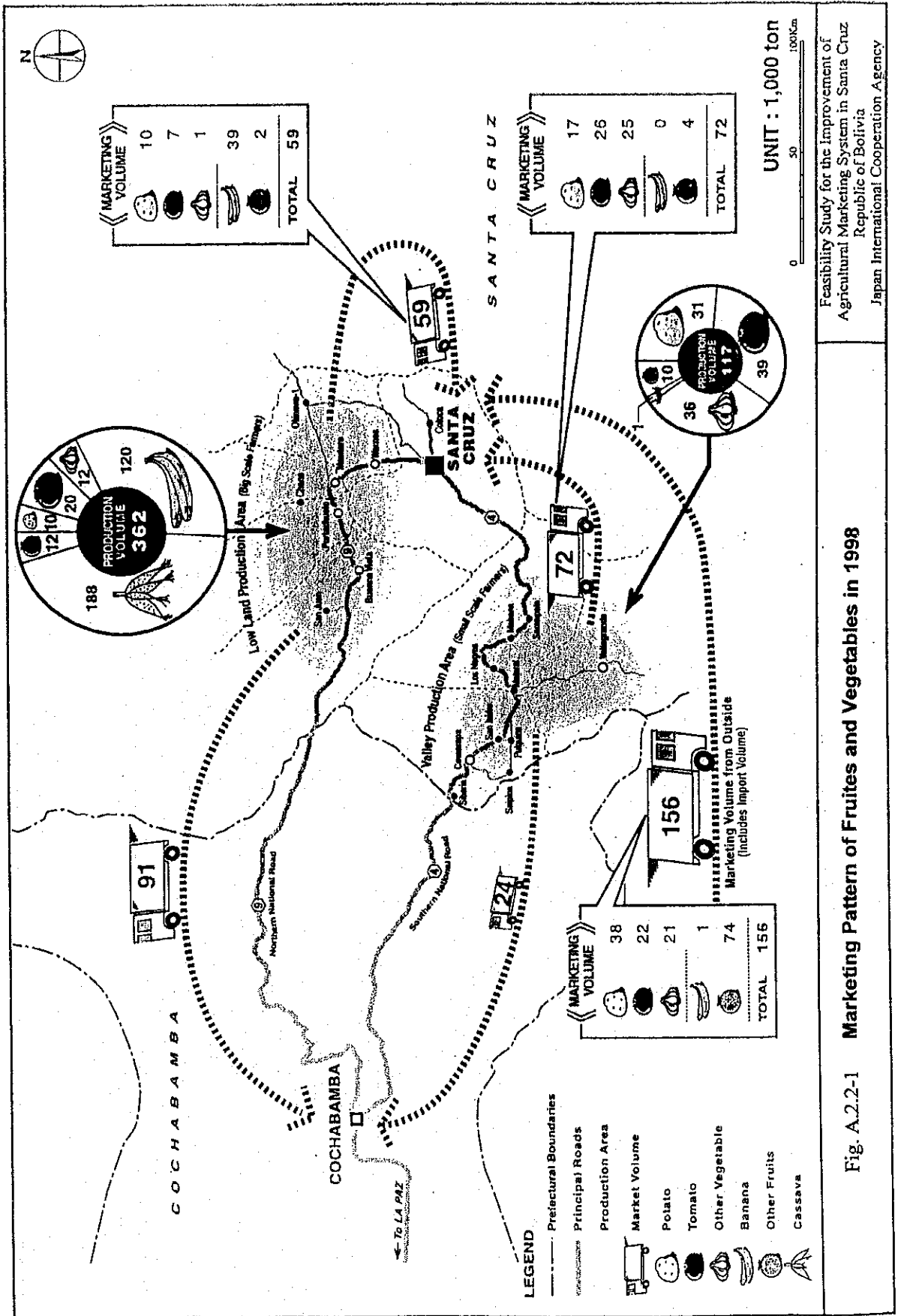


*Feasibility Study
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in
Santa Cruz*

ANNEX 2

FIGURES, TABLES & ATTACHMENTS





Feasibility Study for the Improvement of Agricultural Marketing System in Santa Cruz Republic of Bolivia
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Fig. A.2.2-1 Marketing Pattern of Fruits and Vegetables in 1998

Farmgate price of potato

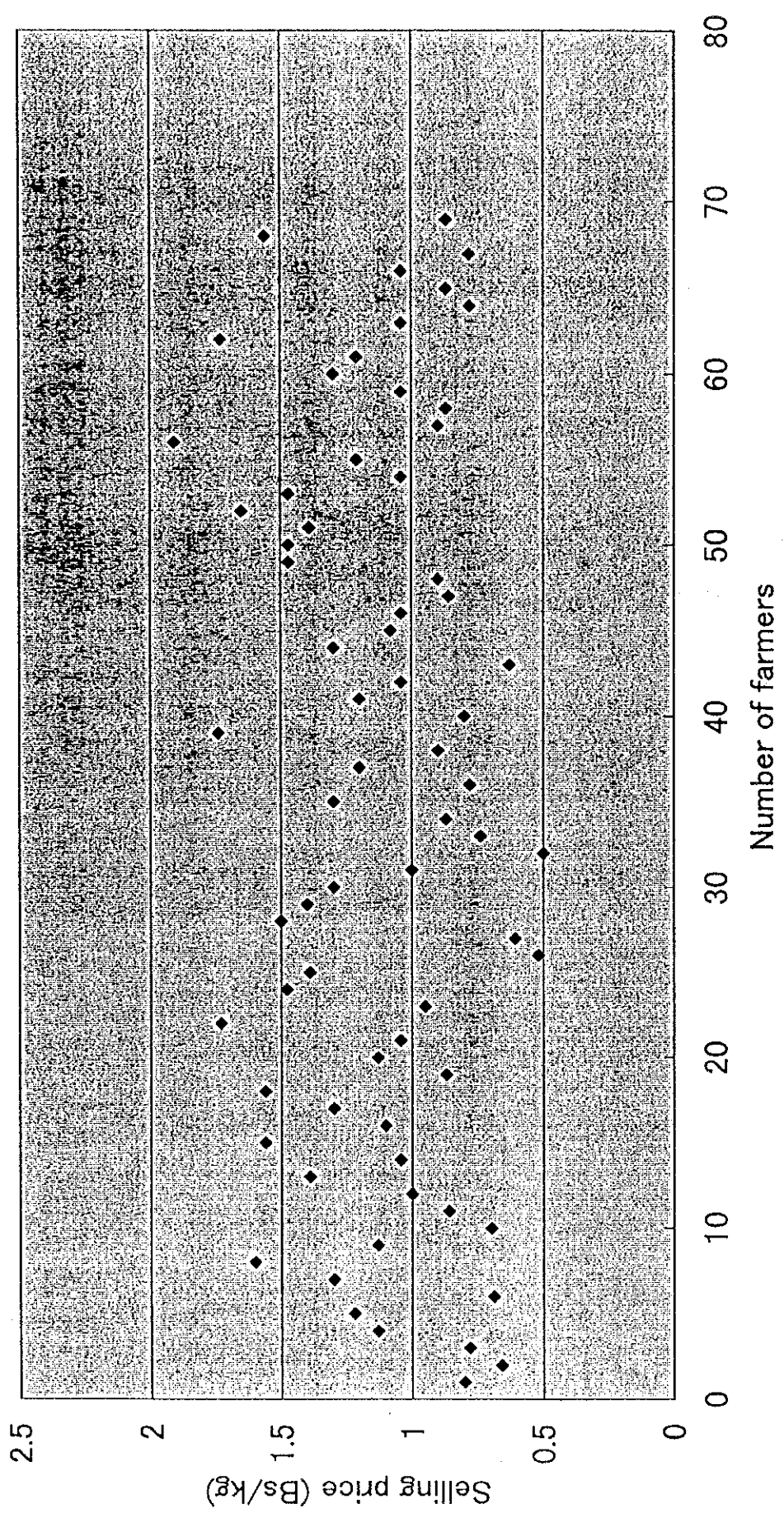


Fig. A.2.2-2 Farmgate price of potato

Farmgate price of tomato

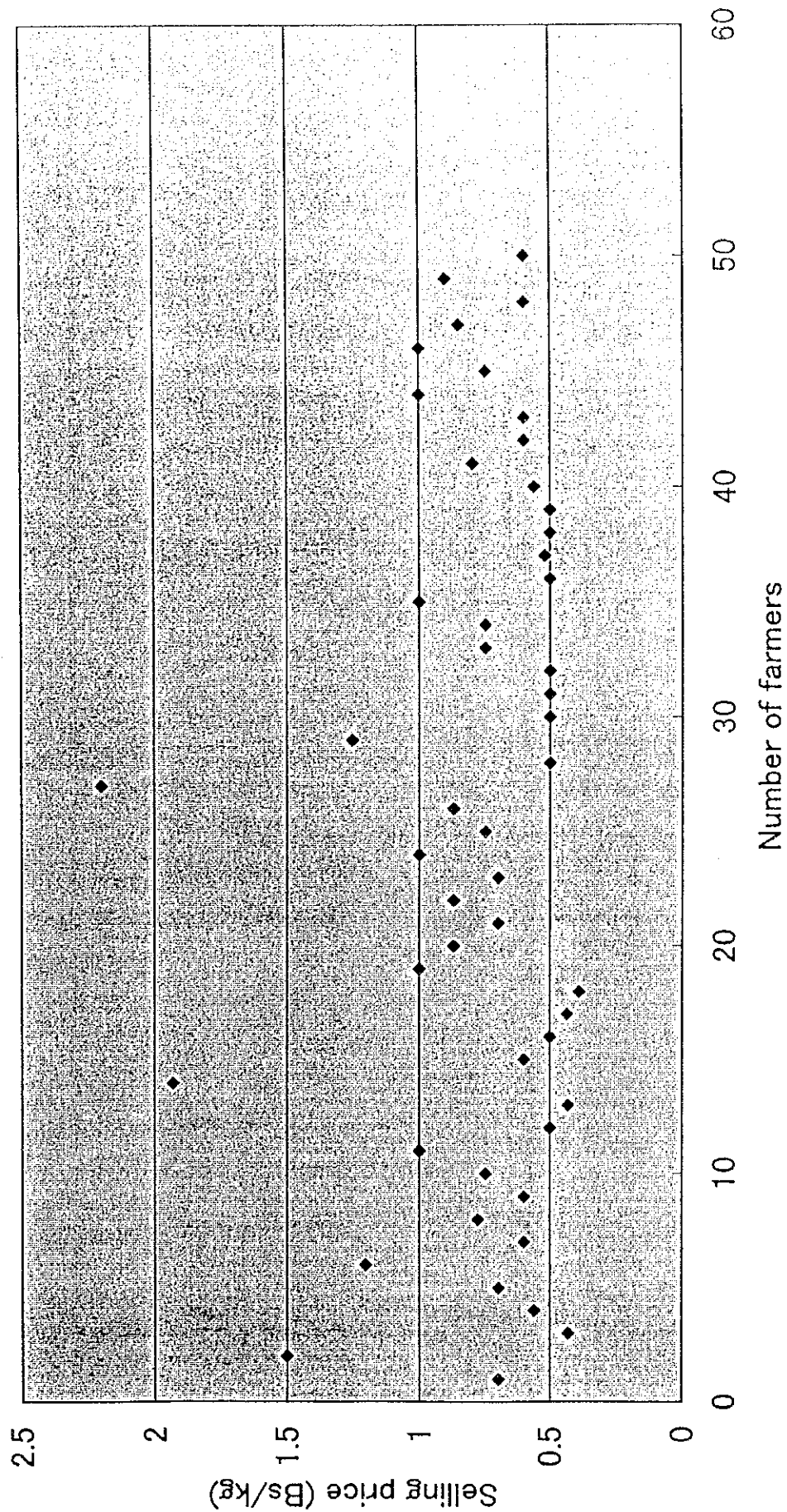


Fig. A.2.2-3 Farmgate price of tomato

Monthly Change of Wholesale Price of Potato

Bs./kg

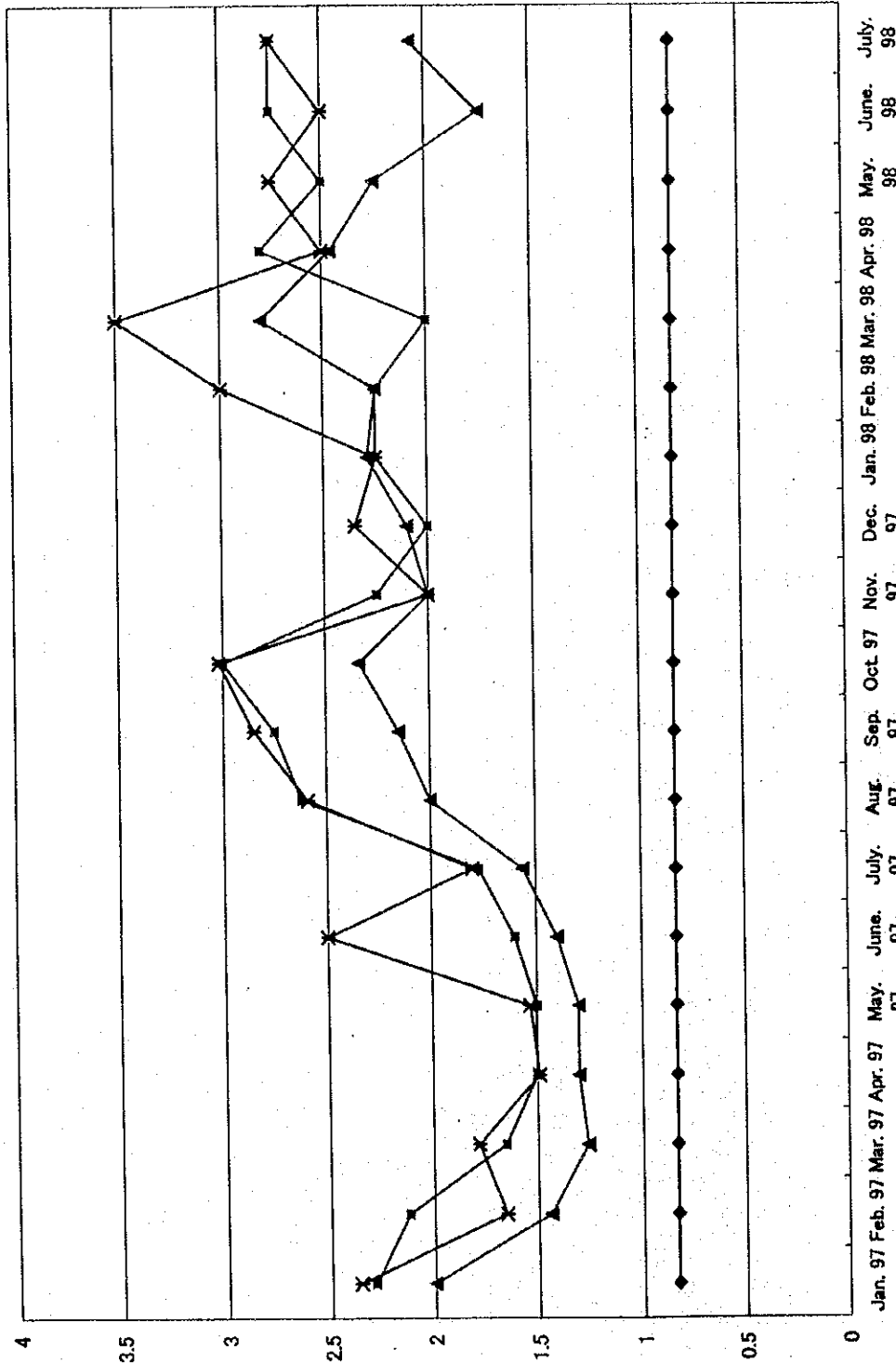


Fig. A.2.2-4 MONTHLY CHANGE OF WHOLESALE PRICE OF POTATO

Monthly Change of Wholesale price of Tomato

Bs./kg

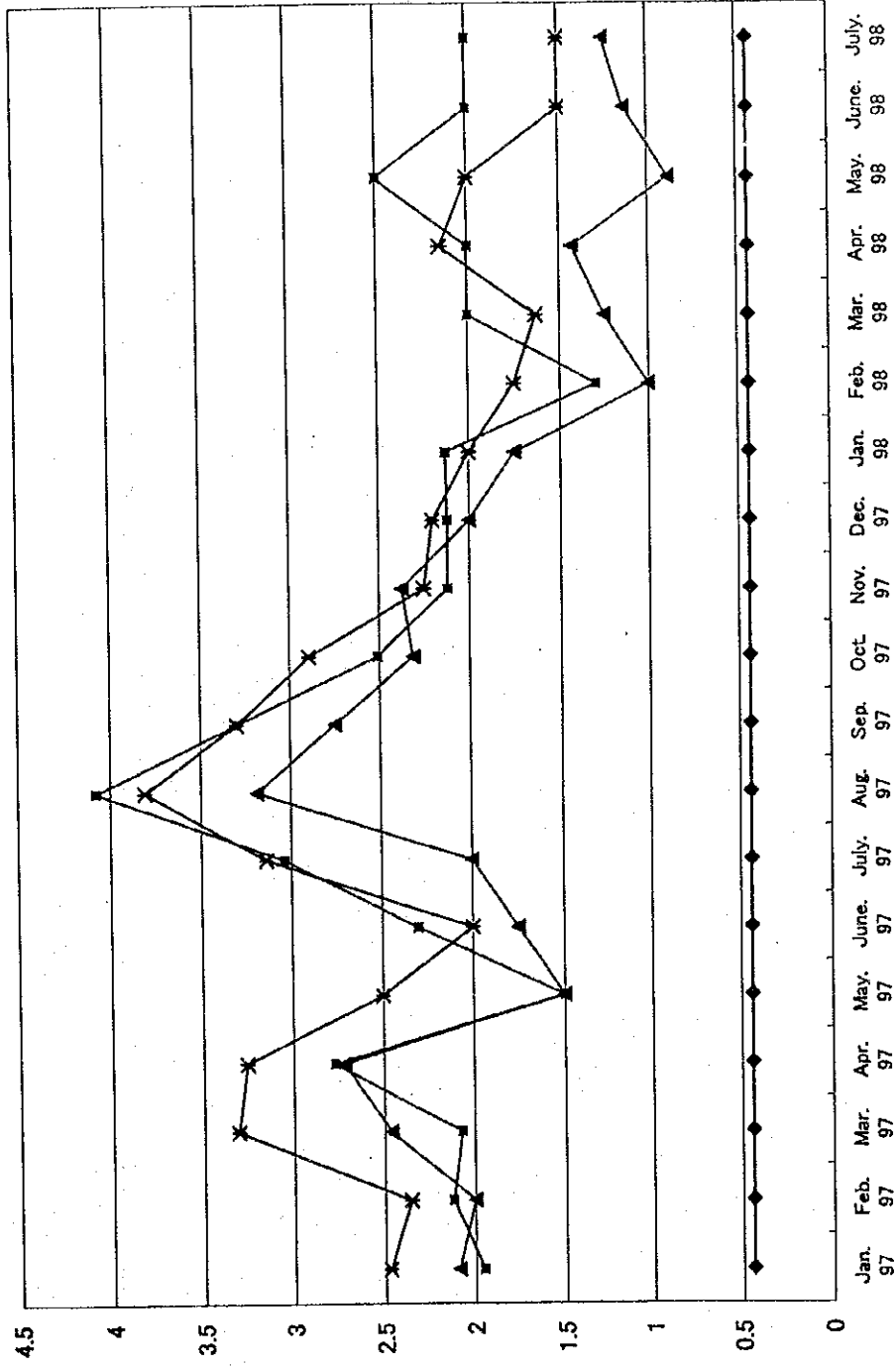
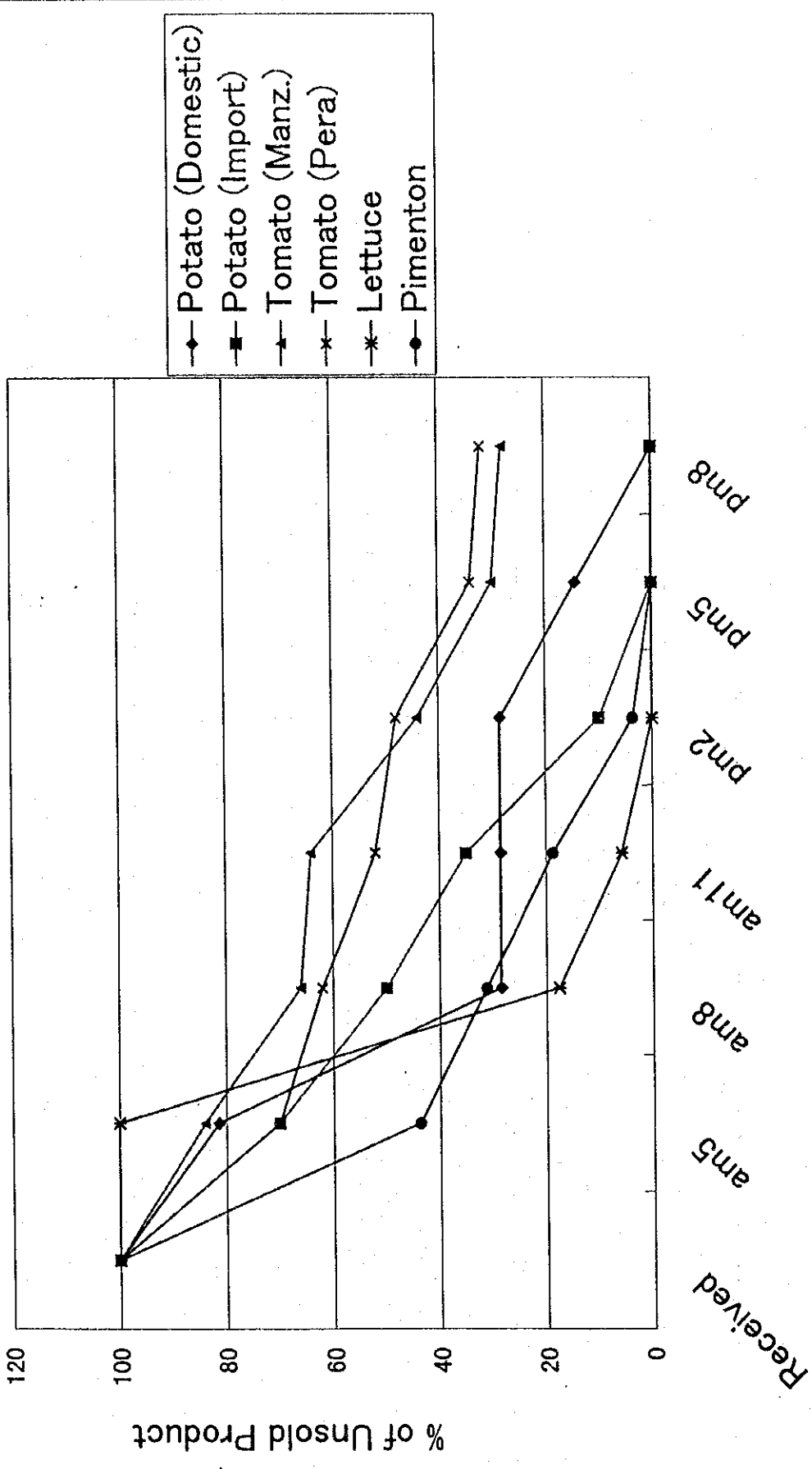


Fig. A.2.2-5 MONTHLY CHANGE OF WHOLESALE PRICE OF TOMATO

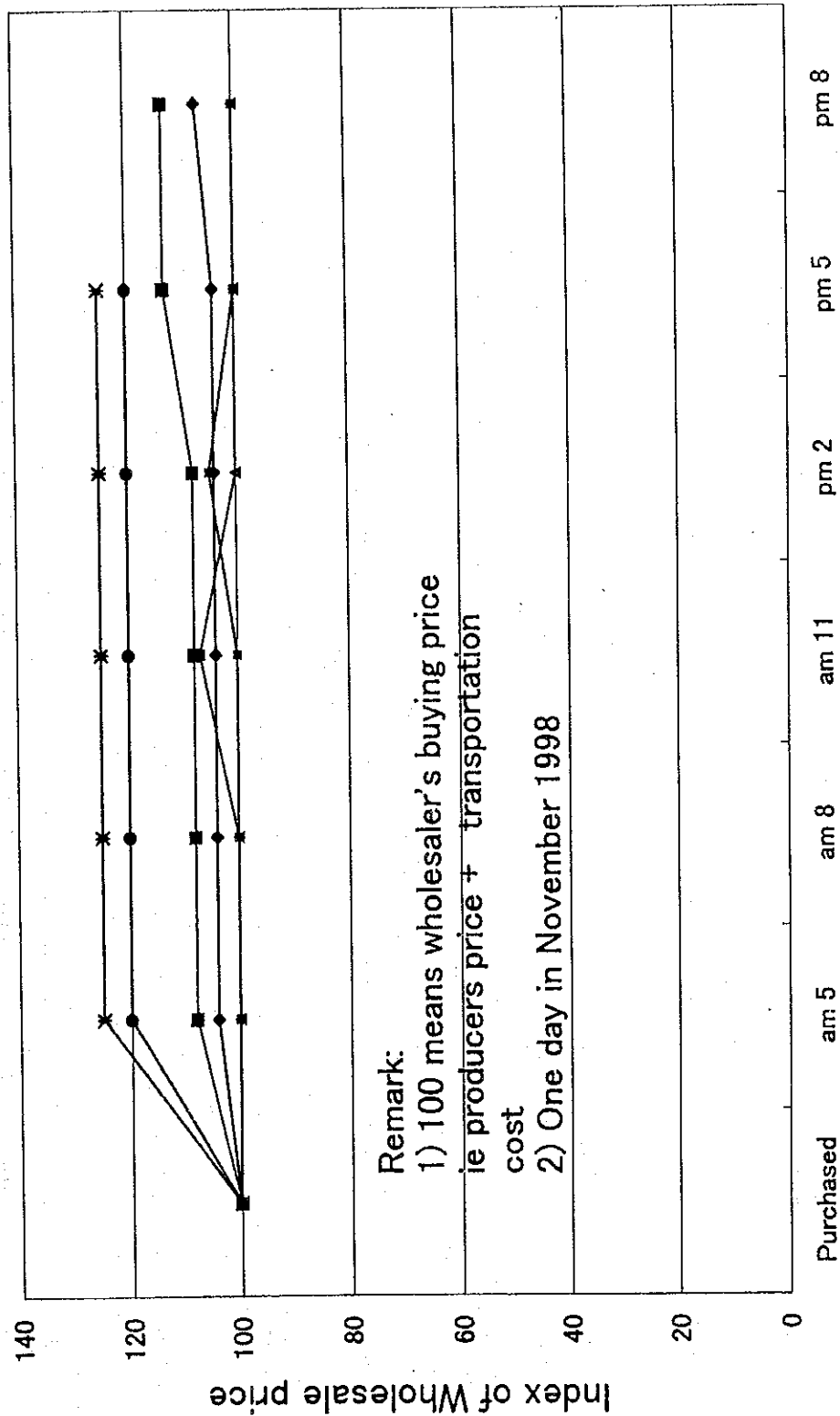
Changes in Product Sales Ratio in one day at Abasto



Remark: One day in November 1998

Fig. A.2.2-6 CHANGES IN PRODUCT SALES RATIO IN ONE DAY AT ABASTO

Changes of Wholesale Price in one day at Abasto



Remark:
 1) 100 means wholesaler's buying price
 ie producers price + transportation cost
 2) One day in November 1998

Fig. A.2.2-7 CHANGES IN WHOLESALE PRICE IN ONE DAY AT ABASTO

Transportation cost by distance

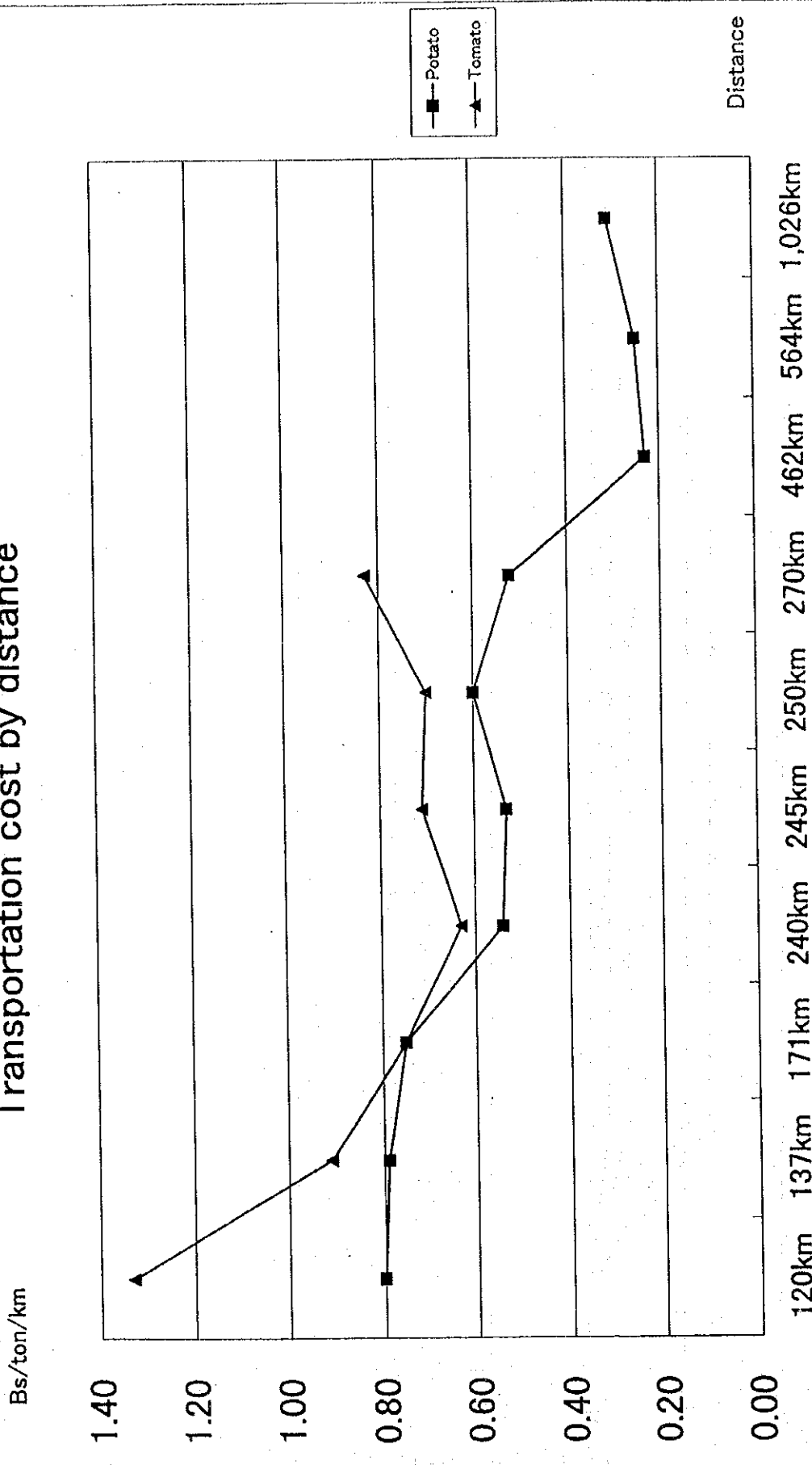


Fig. A.2.2-8 TRANSPORTATION COST BY DISTANCE

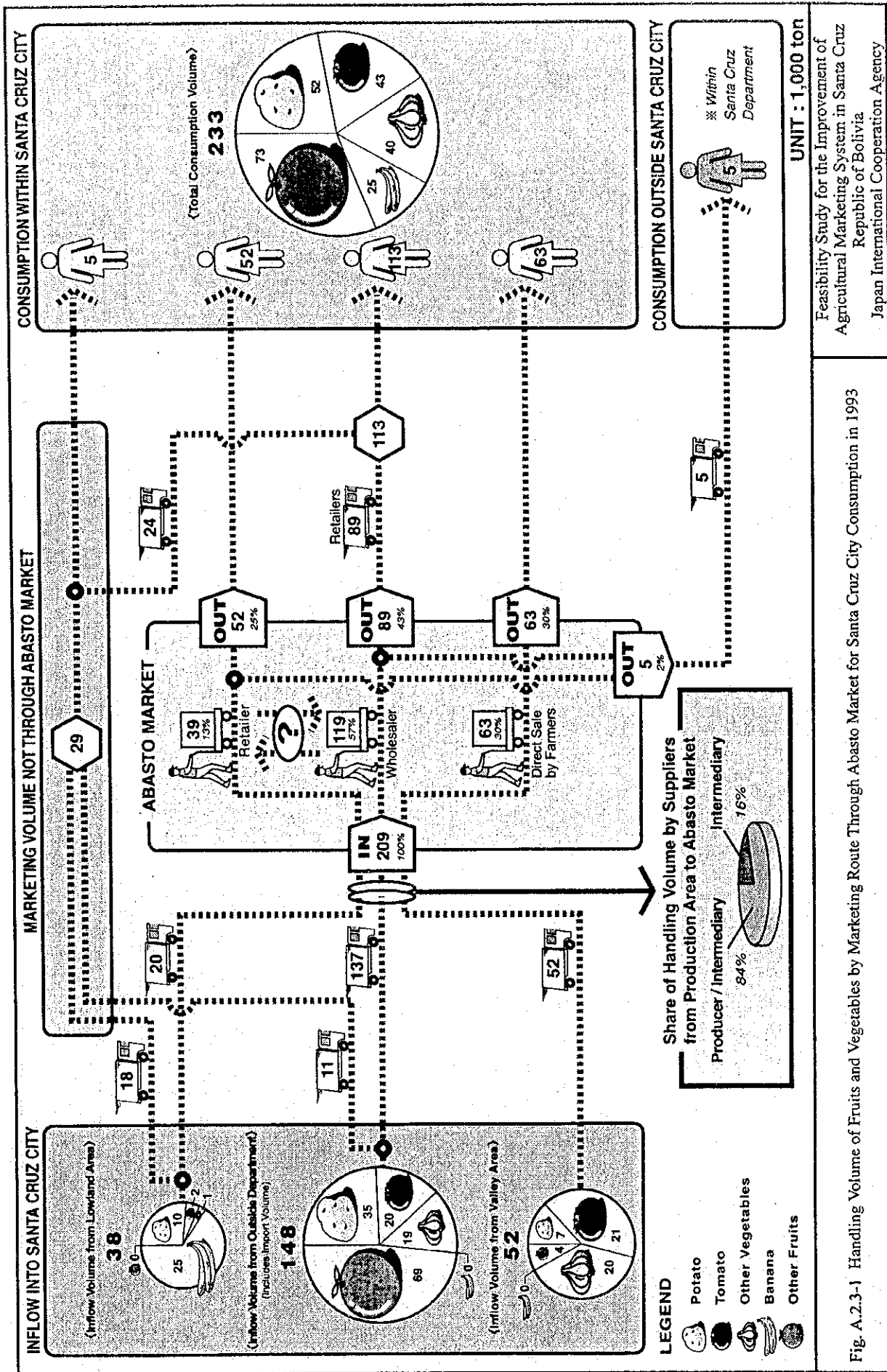


Fig. A.2.3-1 Handling Volume of Fruits and Vegetables by Marketing Route Through Abasto Market for Santa Cruz City Consumption in 1993

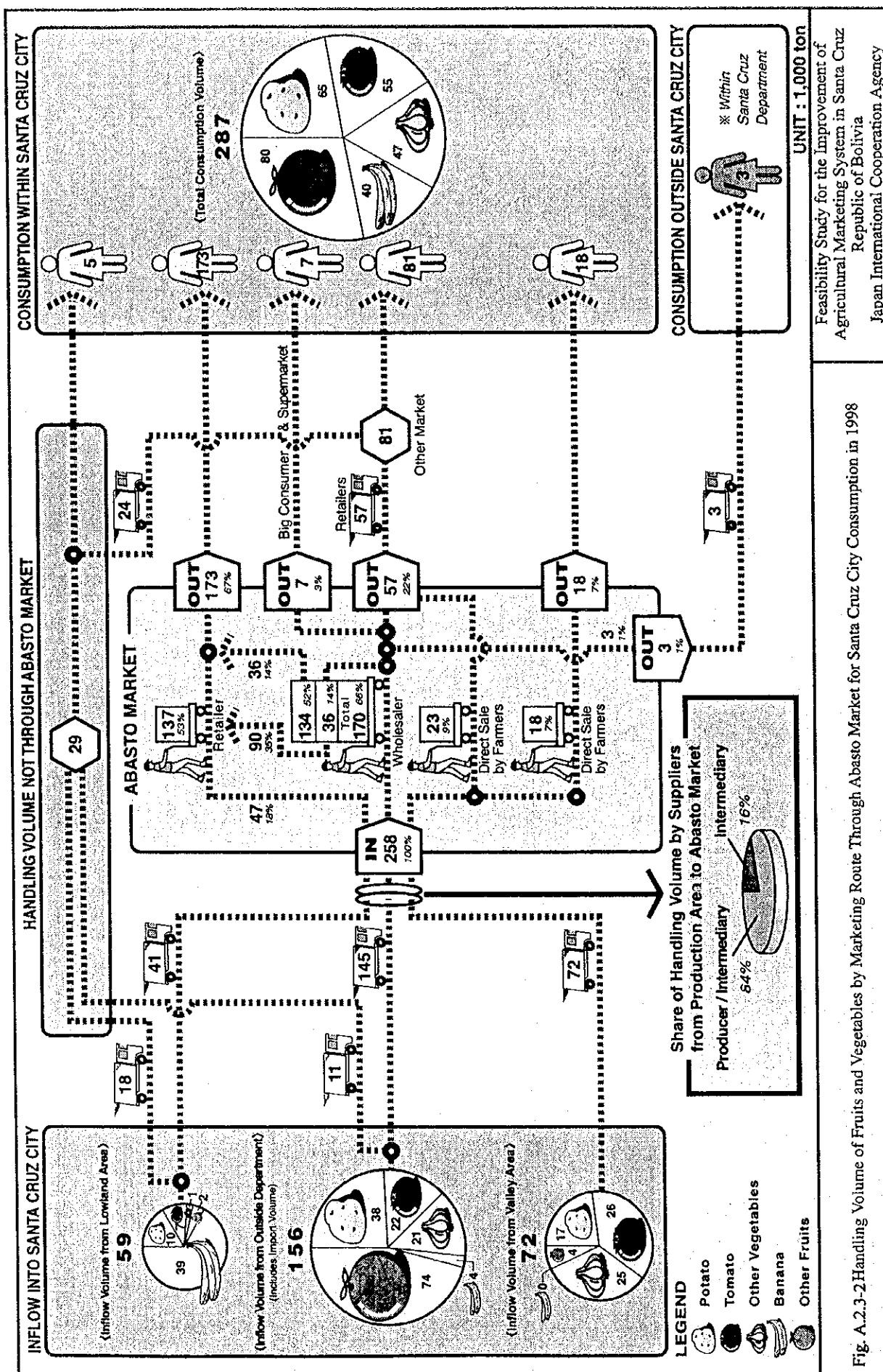


Fig. A.2.3-2 Handling Volume of Fruits and Vegetables by Marketing Route Through Abasto Market for Santa Cruz City Consumption in 1998

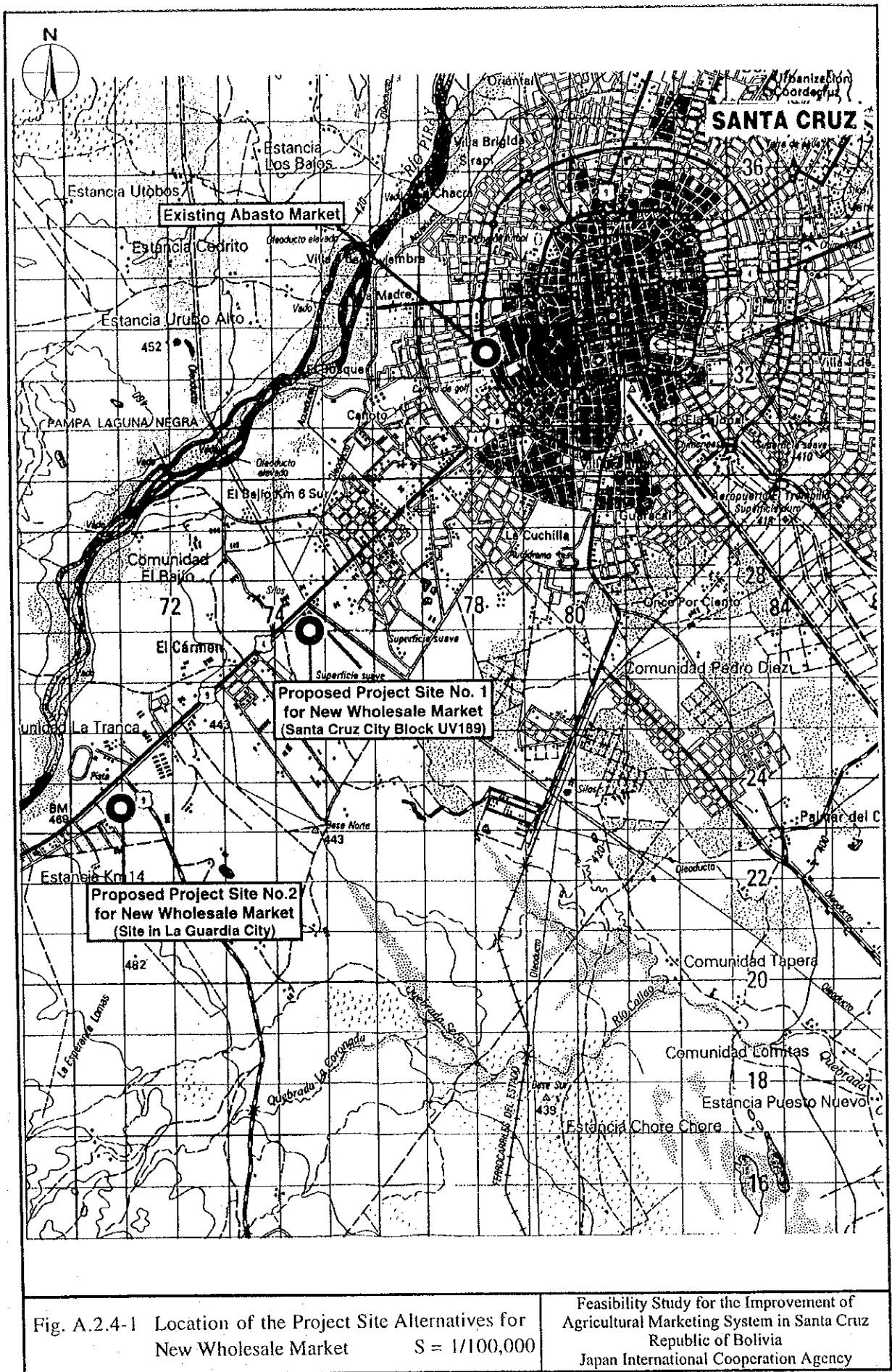


Fig. A.2.4-1 Location of the Project Site Alternatives for New Wholesale Market S = 1/100,000

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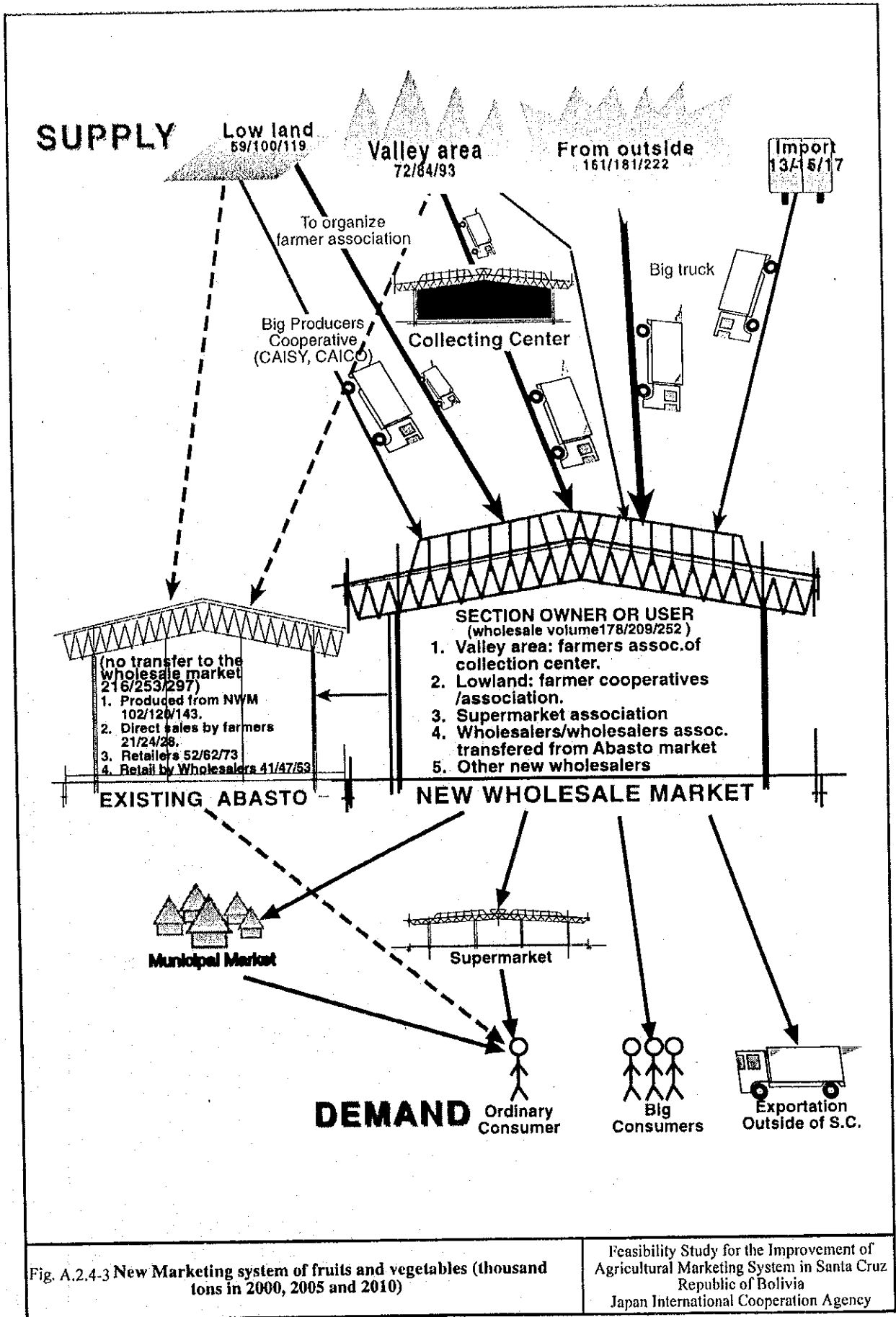
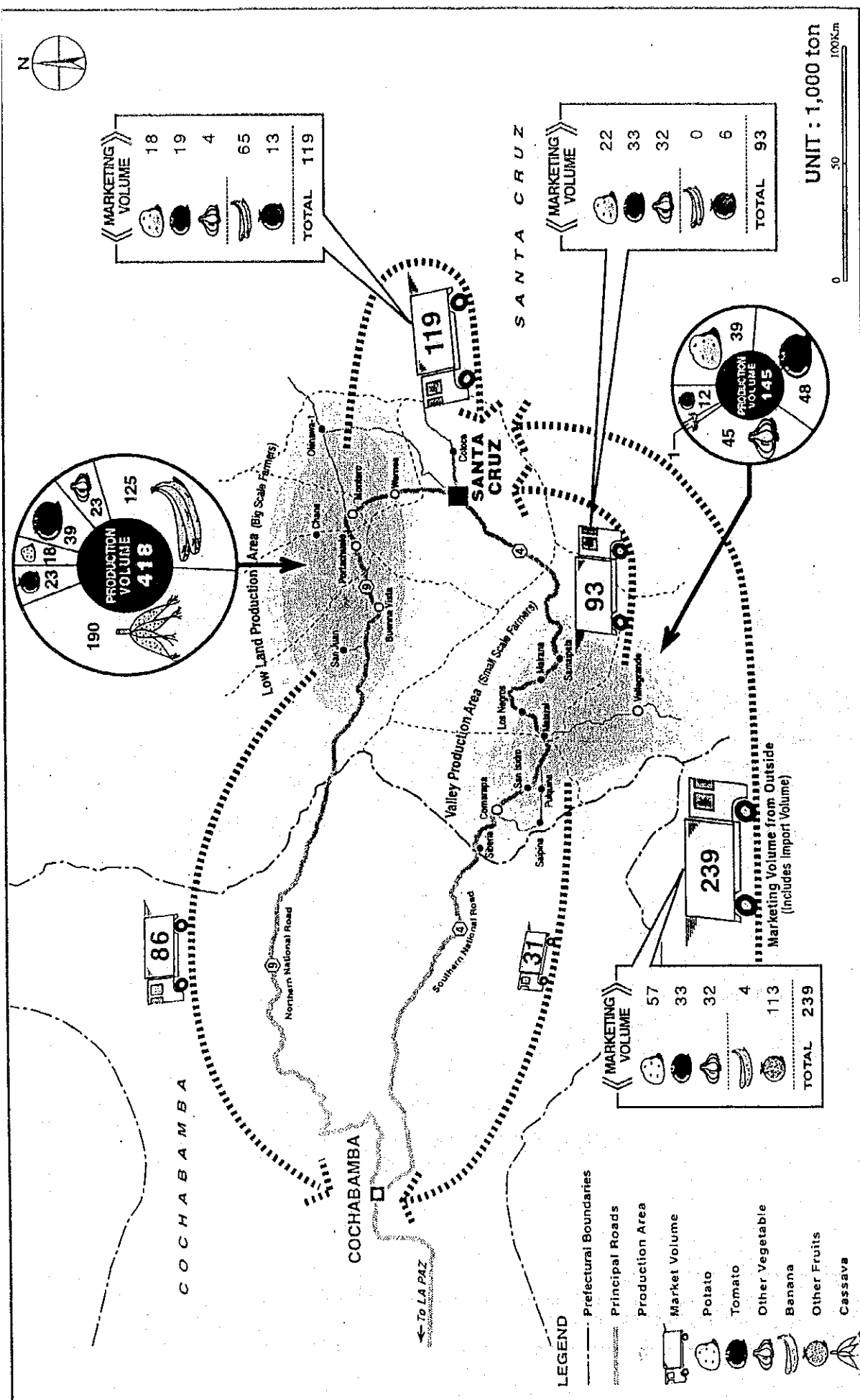


Fig. A.2.4-3 New Marketing system of fruits and vegetables (thousand tons in 2000, 2005 and 2010)

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Fig. A.2.4-4 Marketing Pattern of Fruits and Vegetables in 2010

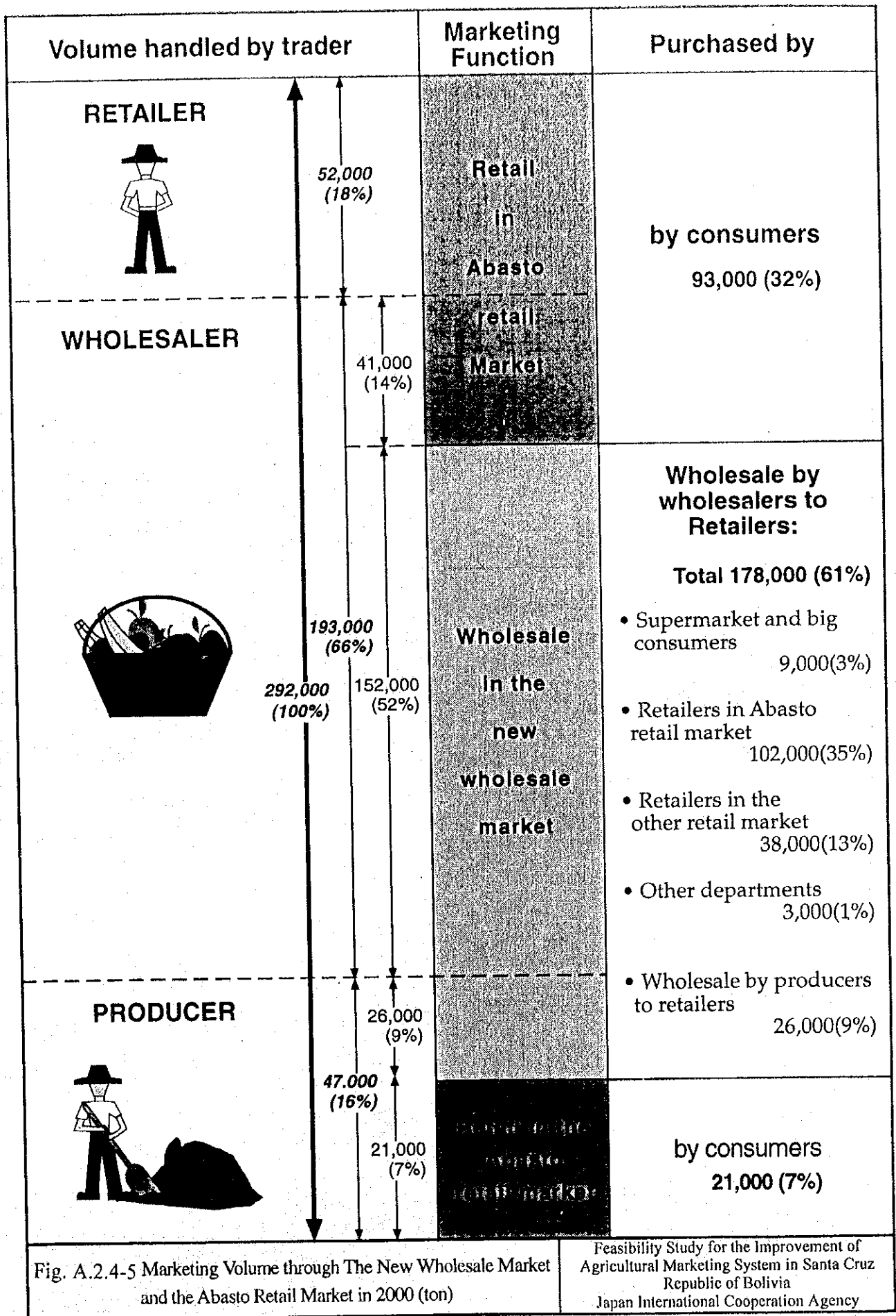


Fig. A.2.4-5 Marketing Volume through The New Wholesale Market and the Abasto Retail Market in 2000 (ton)

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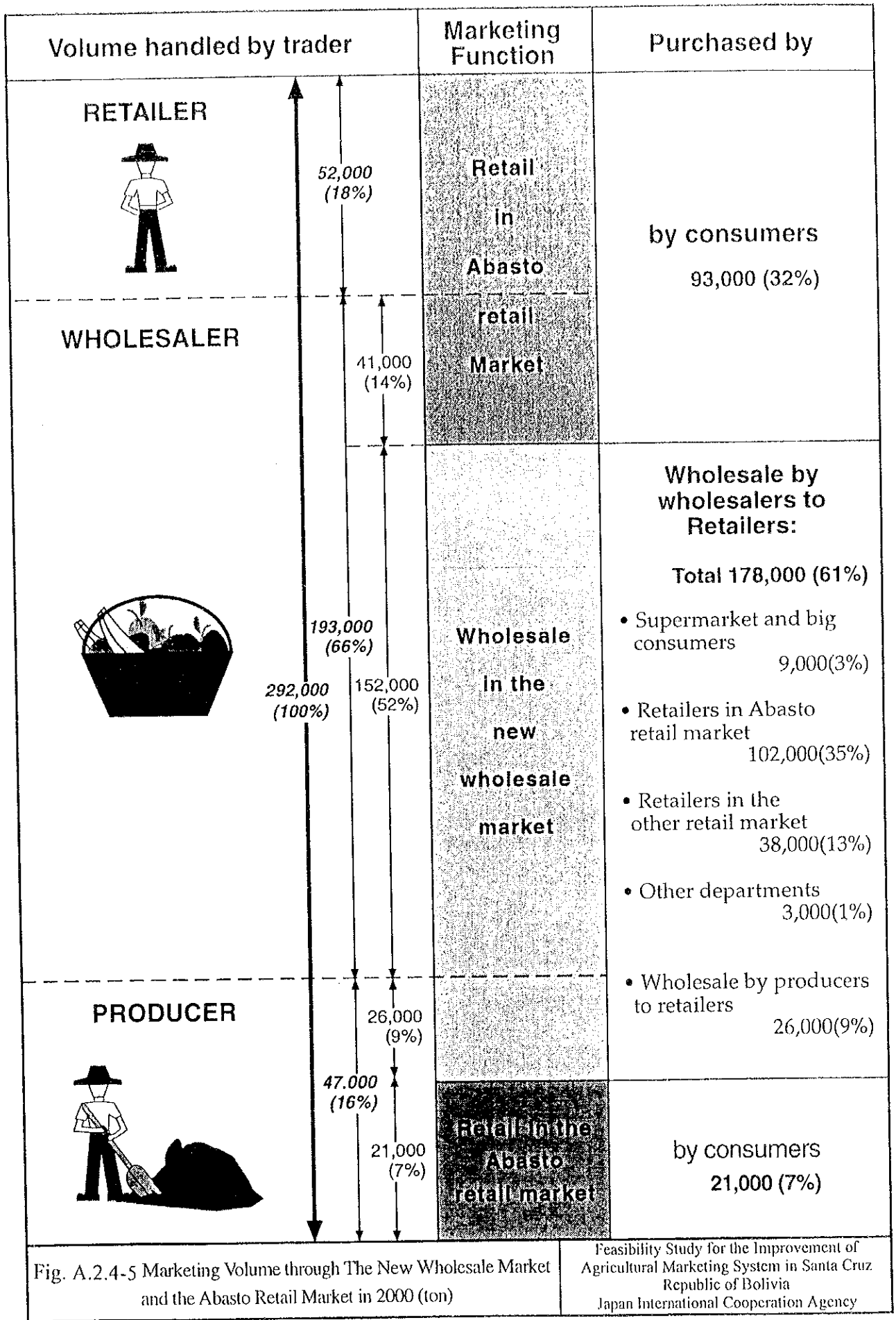


Fig. A.2.4-5 Marketing Volume through The New Wholesale Market and the Abasto Retail Market in 2000 (ton)

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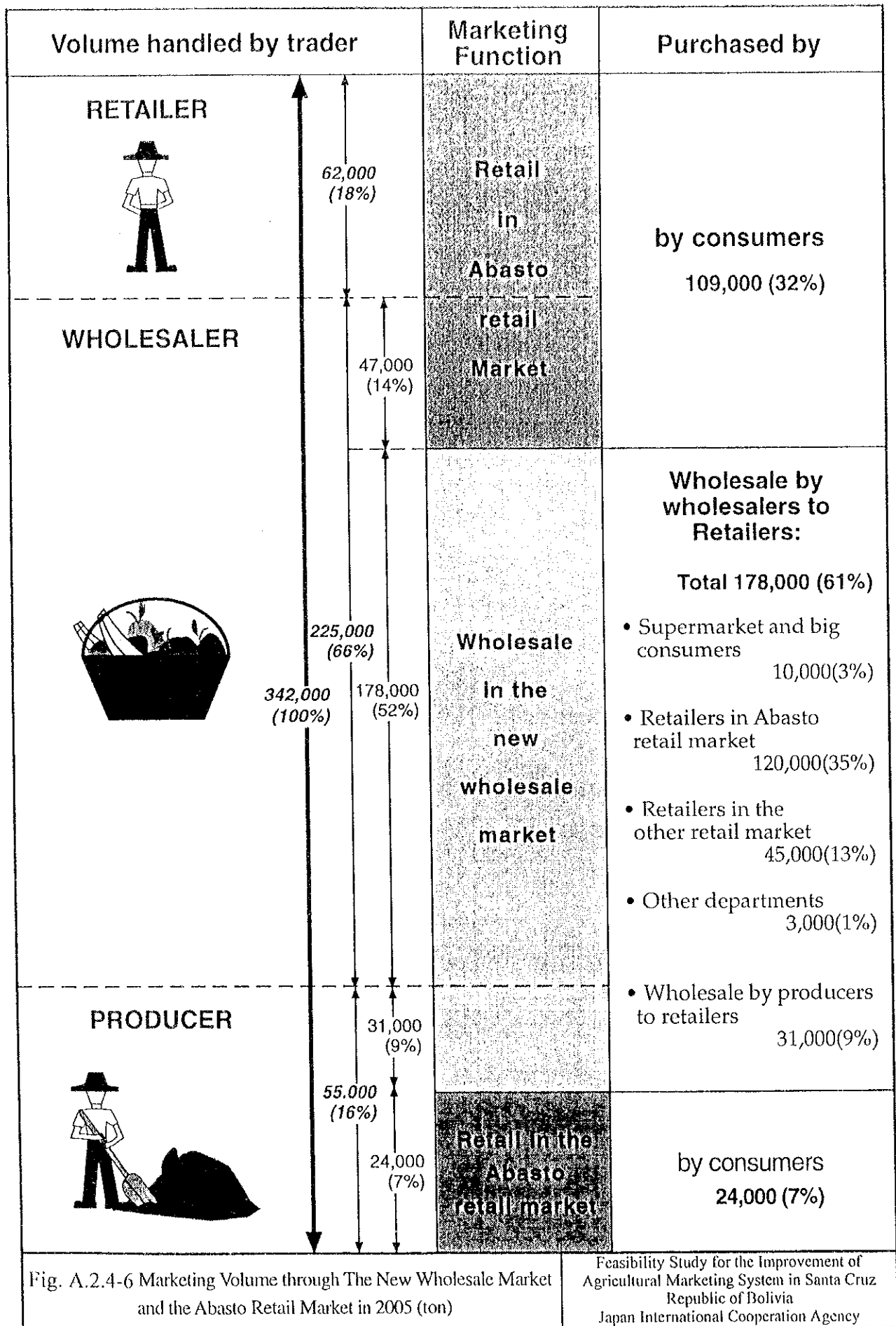


Fig. A.2.4-6 Marketing Volume through The New Wholesale Market and the Abasto Retail Market in 2005 (ton)

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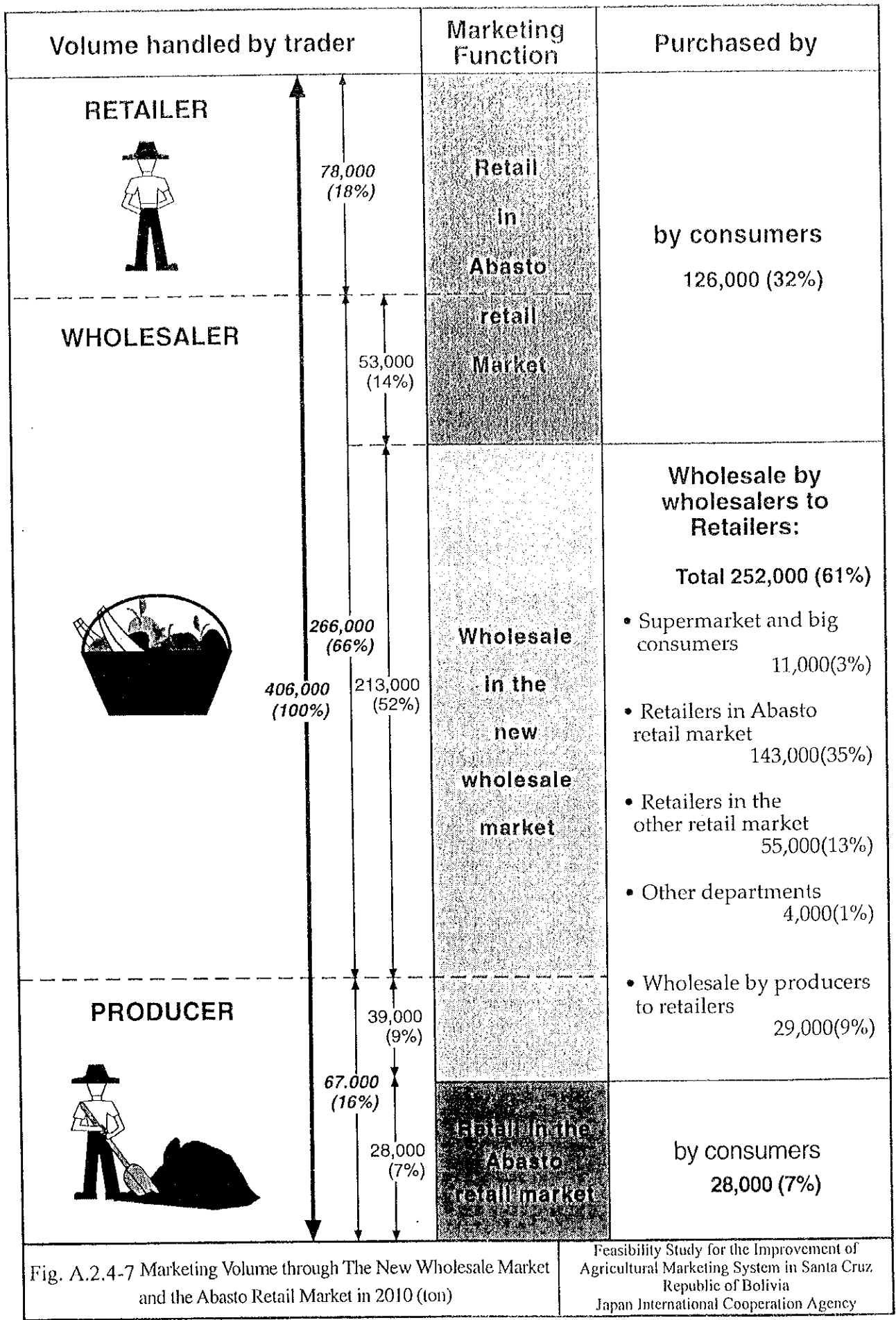


Fig. A.2.4-7 Marketing Volume through The New Wholesale Market and the Abasto Retail Market in 2010 (ton)

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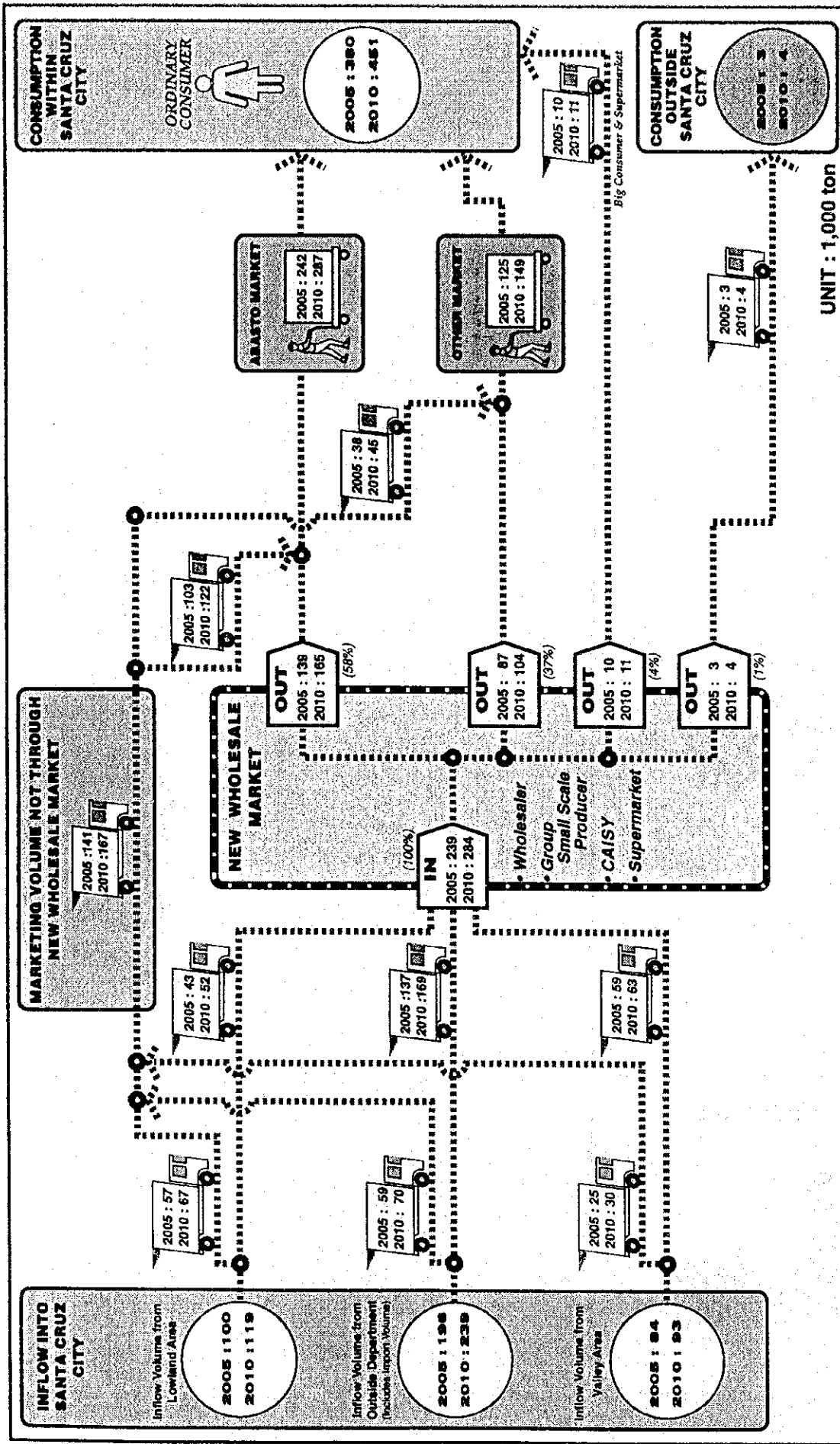


Fig. A.2.4-8 Handling Volume of Fruits and Vegetables by Marketing Route Through Abasto Market for Santa Cruz City Consumption in 2005 and 2010

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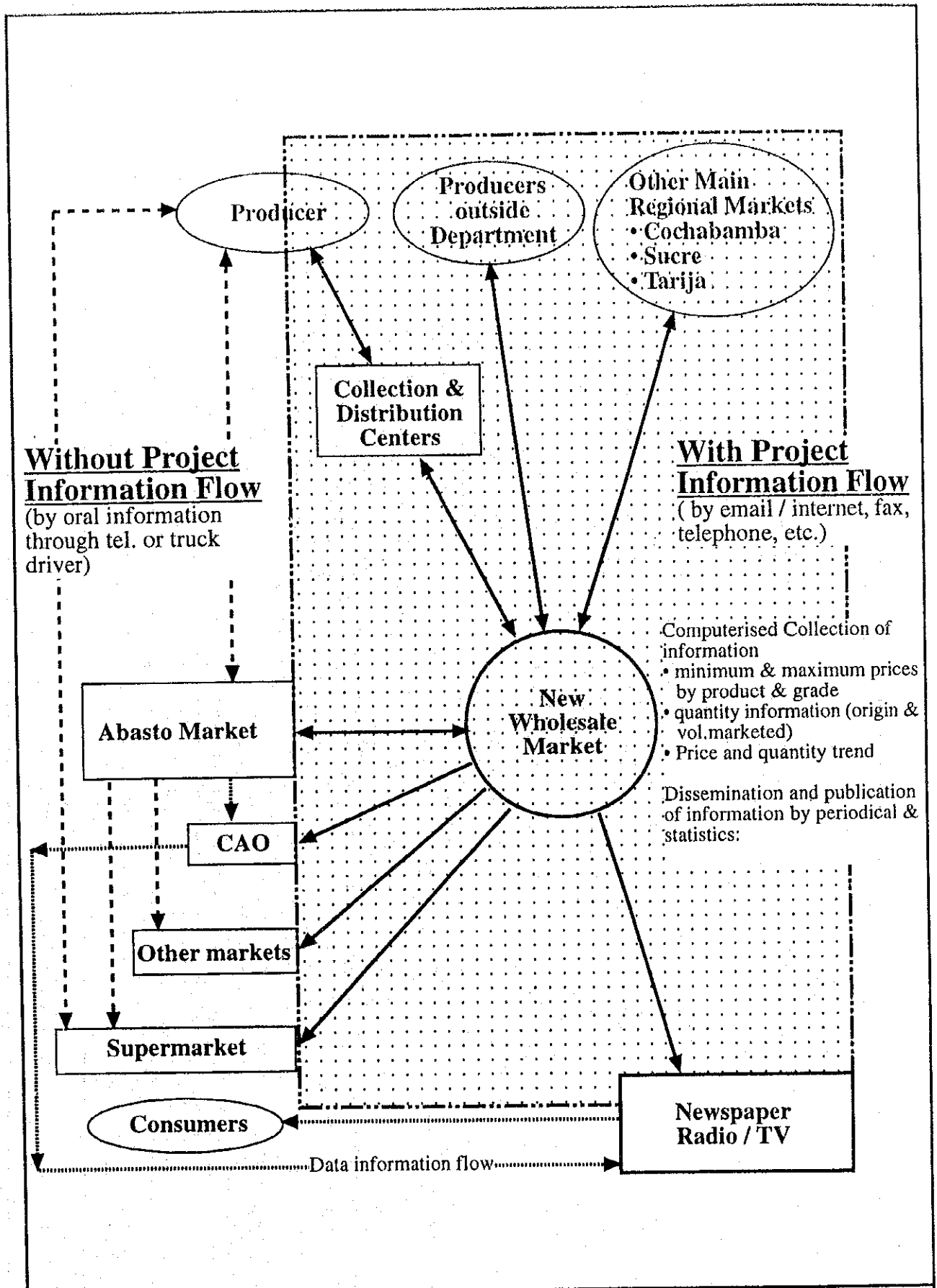
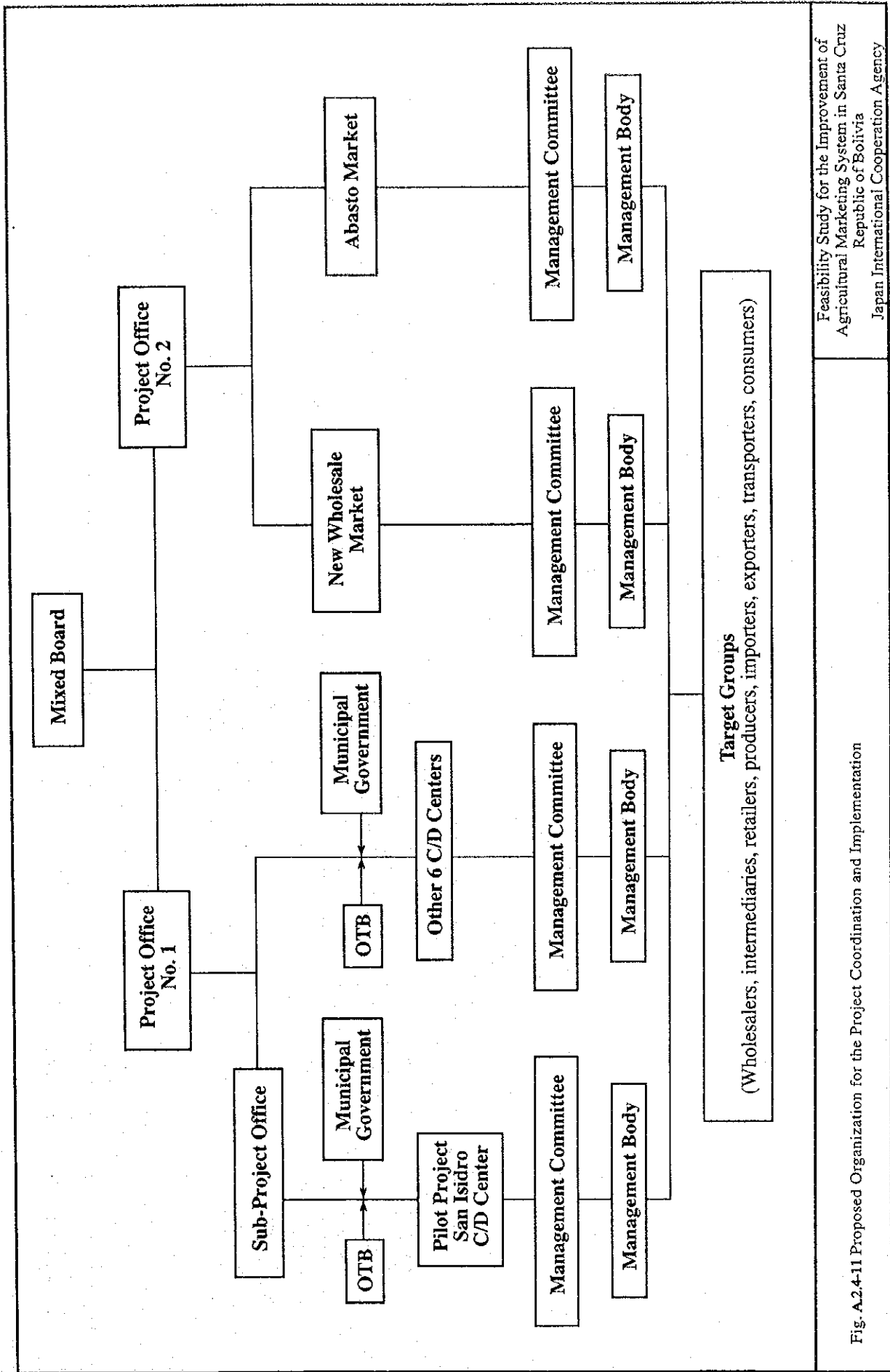


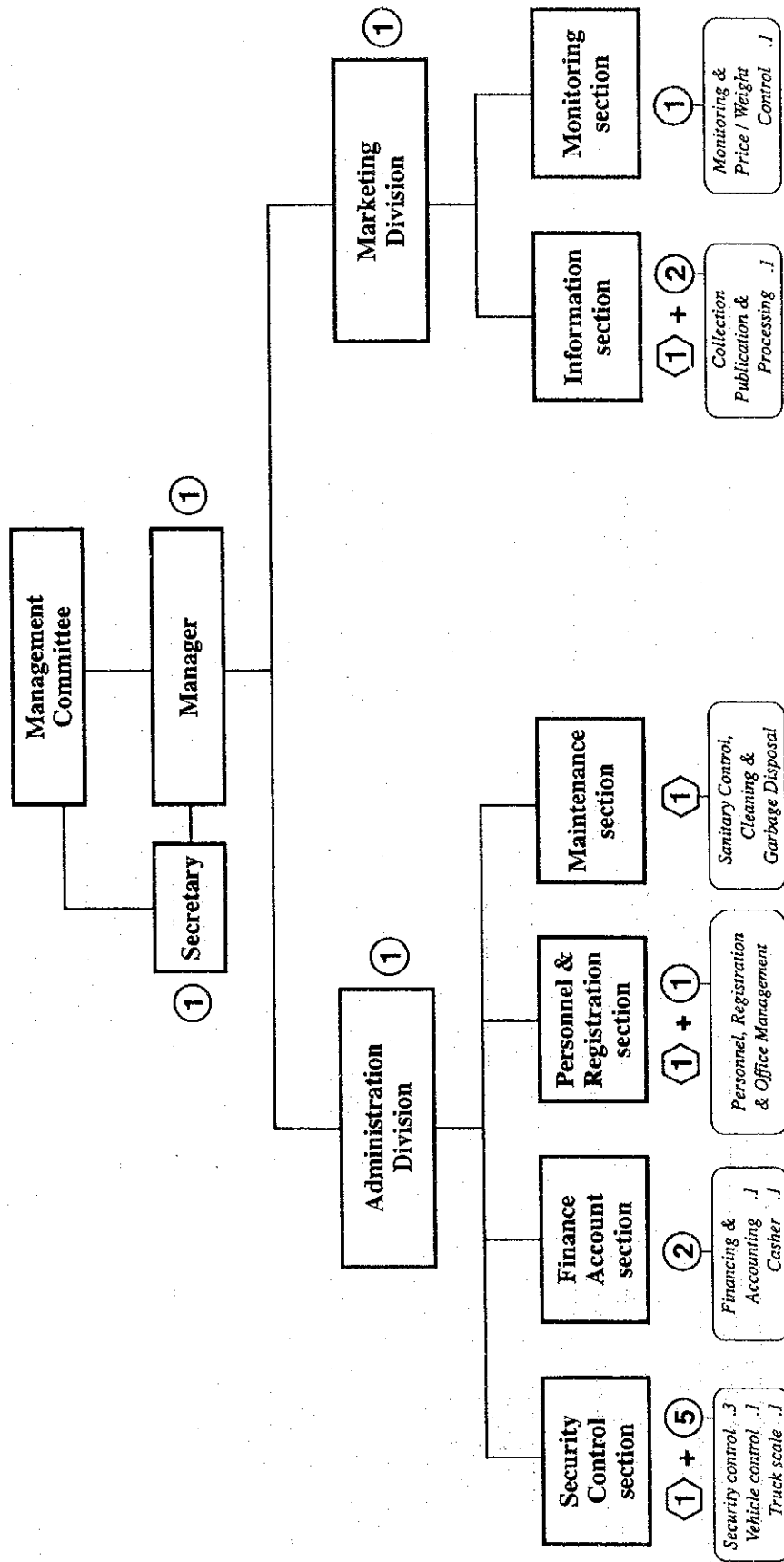
Fig. A.2.4-9 Outline of Marketing Information System

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Fig. A.2.4-11 Proposed Organization for the Project Coordination and Implementation

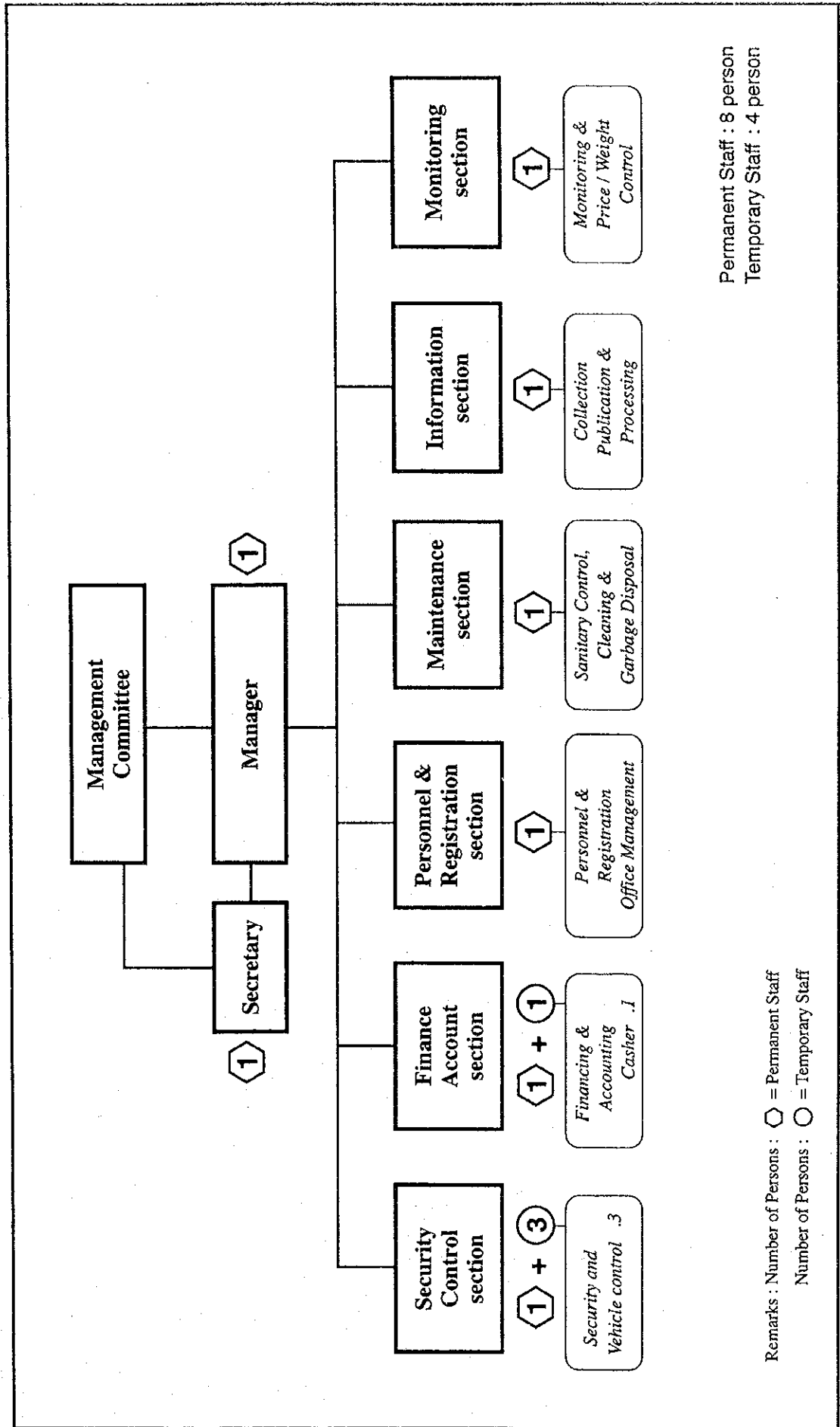


Permanent Staff : 8 person
Employee : 11 person

Remarks : Number of Persons : ○ = Permanent Staff
Number of Persons : ◊ = Temporary Staff

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Fig.A.2.4-12. Proposed Organization for the New Wholesale Market

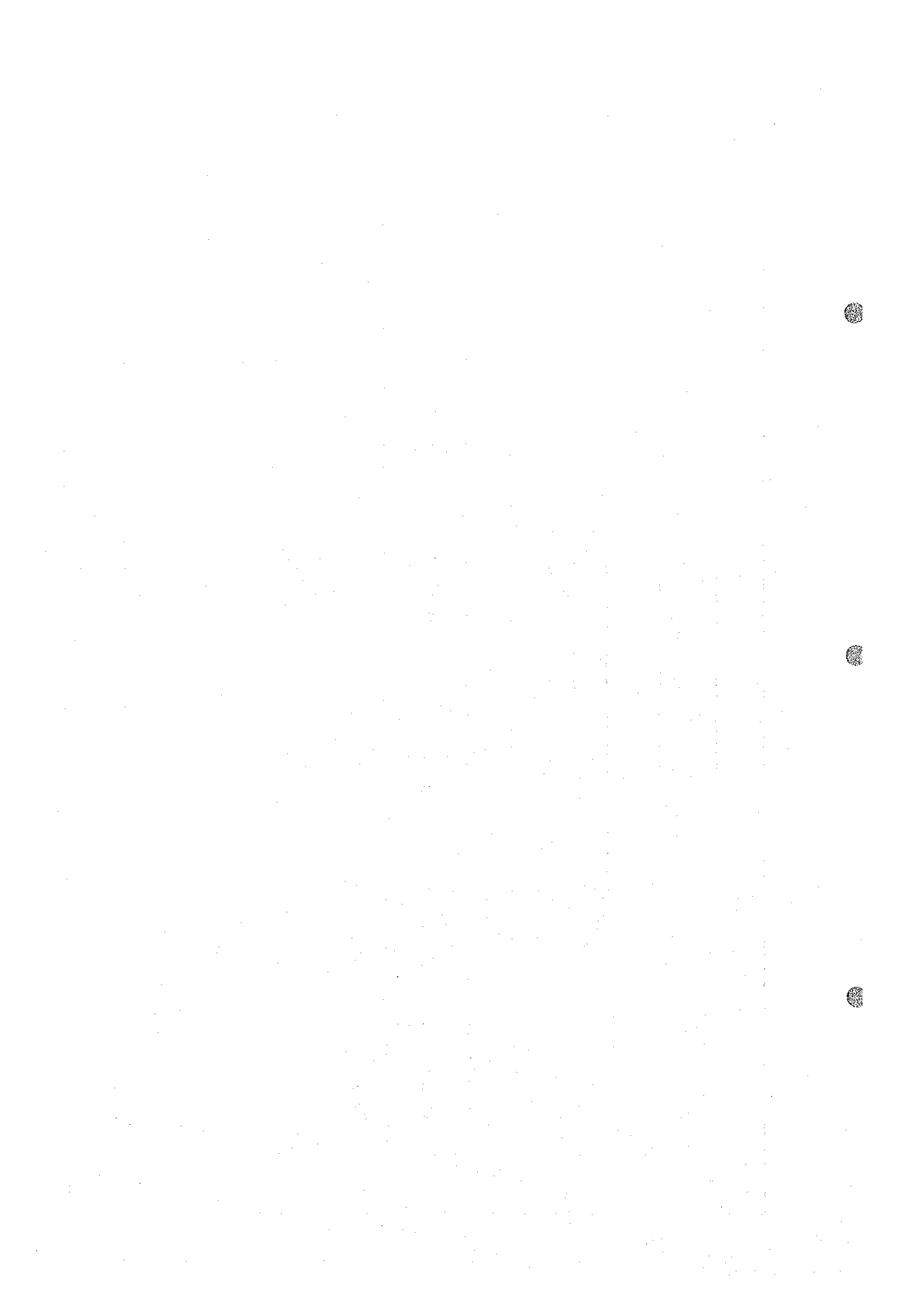


Permanent Staff : 8 person
 Temporary Staff : 4 person

Remarks : Number of Persons : ○ = Permanent Staff
 ○ = Temporary Staff

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Fig.A.2.4-13 Proposed Organization for Abasto Retail Market



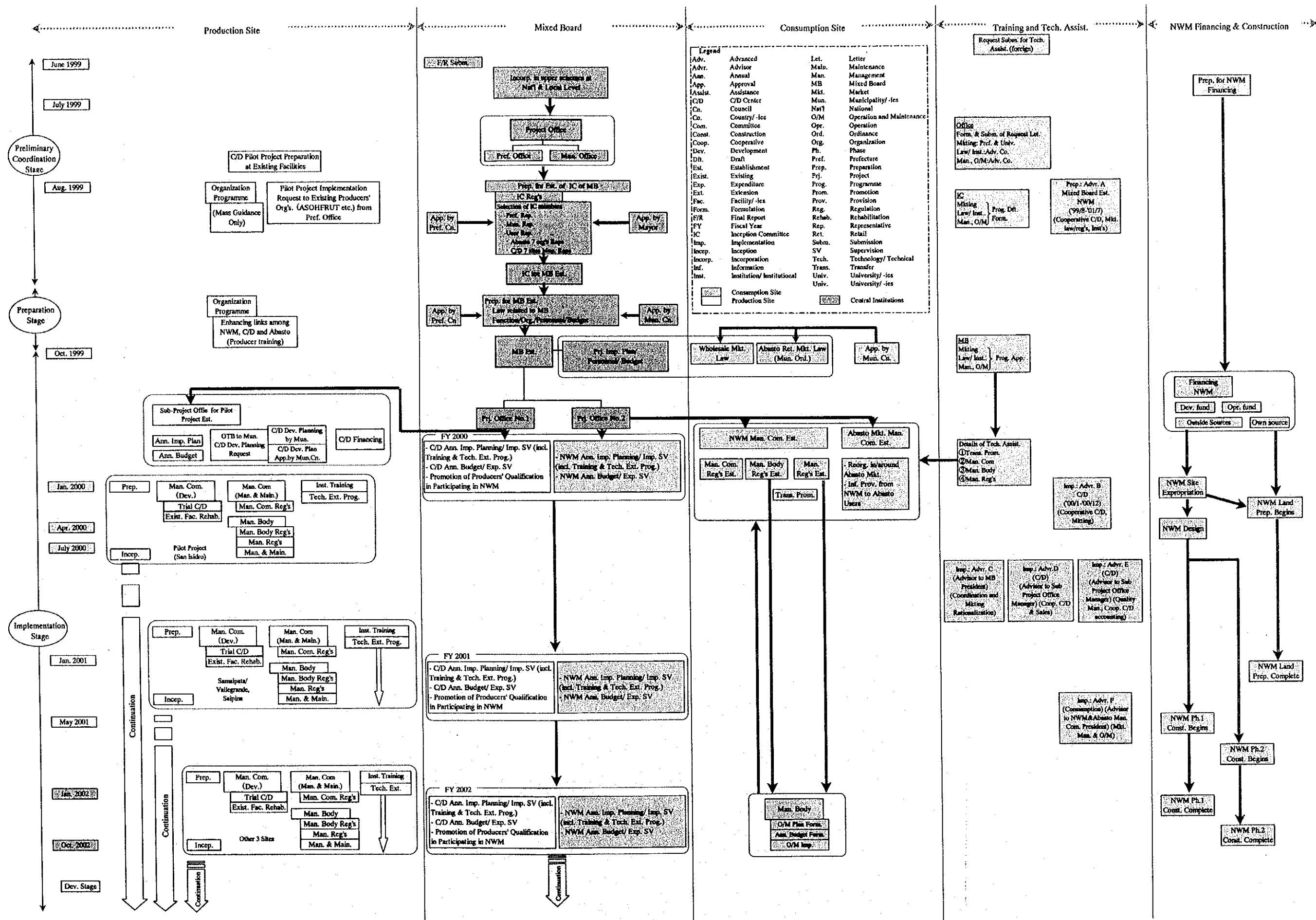


Fig. A.2.6-1 Project Implementation Process

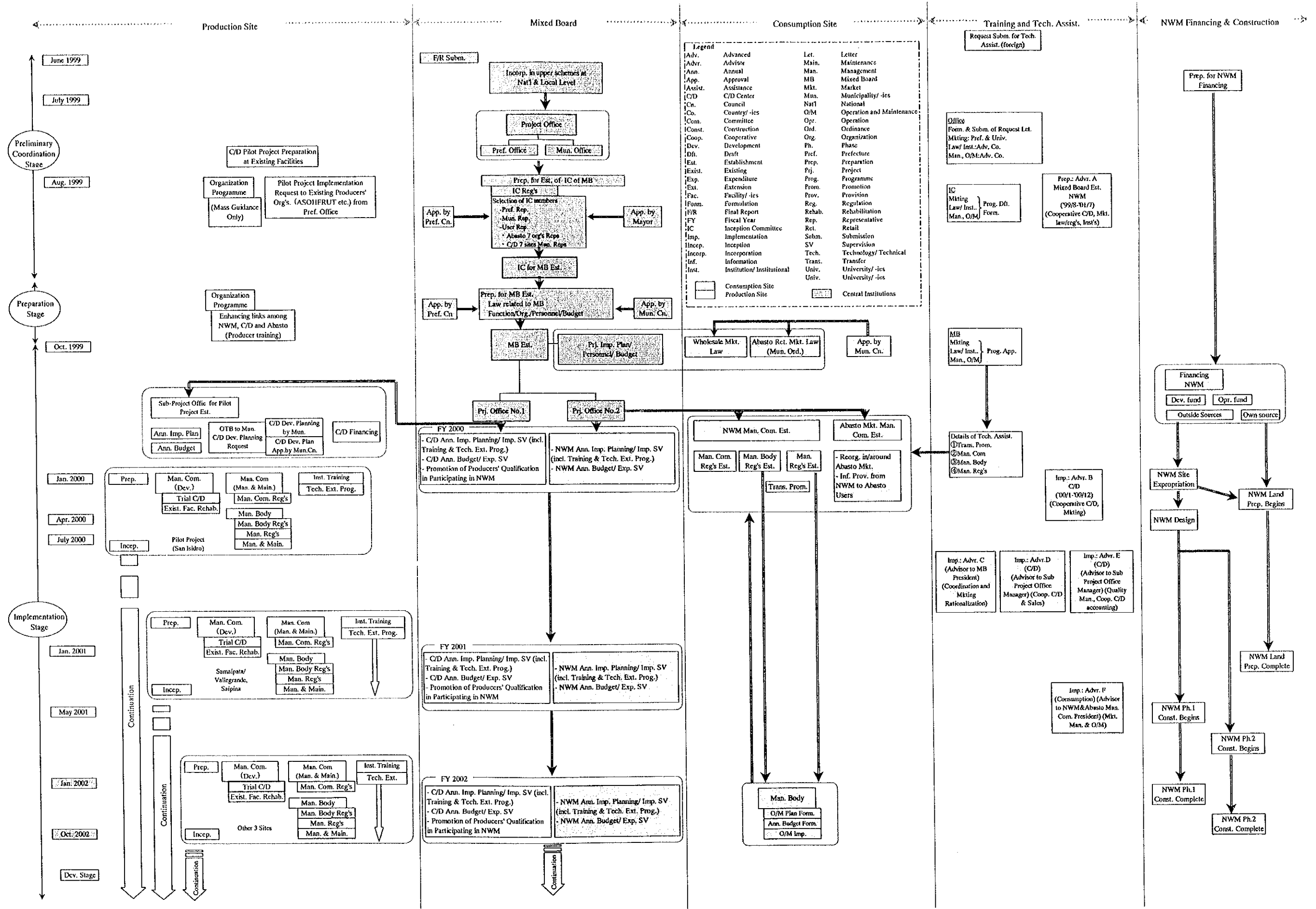


Fig. A.2.6-1 Project Implementation Process

Table A.2.2-1 POPULATION BY PROVINCE IN SANTA CRUZ DEPT.

	1995	1996	1997
1. Andre Ibanez	927,197	967,590	1,009,379
1) Santa Cruz City	838,464	874,991	912,781
		(+4.32%)	(+4.32%)
2) Others	88,733	92,599	96,598
2. Valley area	66,416	65,924	65,414
1) Vallegrande	27,098	26,899	26,692
2) Florida	22,769	22,512	22,250
3) Caballero	16,549	16,513	16,472
3. Others	558,941	568,002	577,158
Santa Cruz Dept.	1,552,554	1,601,516	1,651,951
		(+3.15%)	(+3.15%)

Source: Anuario Estadístico 1997, Instituto Nacional de Estadística (INE)

Table A.2.2-2 SUPPLY AND DEMAND OF FRUIT AND VEGETABLE IN SANTA CRUZ DEPT. (1994)

Unit: 1,000 tons

	Supply			Demand			S/D Balance
	Production	Inflow	Total	Consumption	Outflow	Total	
Valley	94	0	94	22	20	42	+52
Low land	292	6	298	183	77	260	+38
SC City	0	143	143	233	0	233	-90
Total	386	149	535	438	97	535	0

Source: JICA Study Team, 1994

Table A.2.2-3 SUPPLY AND DEMAND OF ROOT CROP IN SANTA CRUZ DEPT. (1994)

Unit: 1,000 tons

	Supply			Demand			S/D Balance
	Production	Inflow	Total	Consumption	Outflow	Total	
Valley	25	0	25	14	4	18	+7
Low land	162	3	165	87	68	155	+10
SC City	0	35	35	52	0	52	-17
Total	187	38	225	153	72	225	0

Source: JICA Study Team, 1994

Table A.2.2-4 SUPPLY AND DEMAND OF VEGETABLE IN SANTA CRUZ DEPT. (1994)

Unit: 1,000 tons

	Supply			Demand			S/D Balance
	Production	Inflow	Total	Consumption	Outflow	Total	
Valley	61	0	61	5	15	20	+41
Low land	23	2	25	22	0	22	+3
SC City	0	39	39	83	0	83	-44
Total	84	41	125	110	15	125	0

Source: JICA Study Team, 1994

Table A.2.2-5 SUPPLY AND DEMAND OF FRUIT IN SANTA CRUZ DEPT. (1994)

Unit: 1,000 tons

	Supply			Demand			S/D Balance
	Production	Inflow	Total	Consumption	Outflow	Total	
Valley	8	0	8	3	1	4	+4
Low land	107	1	108	74	9	83	+25
SC City	0	69	69	98	0	98	-29
Total	115	70	185	175	10	185	0

Source: JICA Study Team, 1994

Table A.2.2-6 SUPPLY AND DEMAND OF FRUIT AND VEGETABLE IN SANTA CRUZ DEPT. (1998) Unit: 1,000 tons

	Supply			Demand			S/D Balance
	Production	Inflow	Total	Consumption	Outflow	Total	
Valley	117	0	117	21	22	43	+74
Low land	362	0	362	212	93	305	+57
Import	-	13	13	-	-	-	+13
SC City	0	143	143	287	0	287	-144
Total	479	156	635	520	125	635	0

Source: JICA Study Team, 1998

Table A.2.2-7 SUPPLY AND DEMAND OF ROOT CROP IN SANTA CRUZ DEPT. (1998) Unit: 1,000 tons

	Supply			Demand			S/D Balance
	Production	Inflow	Total	Consumption	Outflow	Total	
Valley	54	0	54	13	8	21	+33
Low land	192	0	192	101	76	177	+15
Import	-	12	12	-	-	-	+12
SC City	0	17	17	64	0	64	-47
Total	250	29	275	116	84	267	+13

Source: JICA Study Team, 1998

Table A.2.2-8 SUPPLY AND DEMAND OF VEGETABLE IN SANTA CRUZ DEPT. (1998) Unit: 1,000 tons

	Supply			Demand			S/D Balance
	Production	Inflow	Total	Consumption	Outflow	Total	
Valley	50	0	50	5	14	19	+31
Low land	21	0	21	25	0	25	-4
Import	-	0	0	-	0	0	0
SC City	0	65	65	102	0	102	-37
Total	71	65	136	132	14	146	-10

Source: JICA Study Team, 1998

Table A.2.2-9 SUPPLY AND DEMAND OF FRUIT IN SANTA CRUZ DEPT. (1998) Unit: 1,000 tons

	Supply			Demand			S/D Balance
	Production	Inflow	Total	Consumption	Outflow	Total	
Valley	13	0	13	3	0	3	+10
Low land	149	0	149	86	17	103	+46
Import	-	1	1	-	-	-	+1
SC City	0	61	61	121	0	121	-60
Total	162	62	224	210	17	227	-3

Source: JICA Study Team, 1998

Table A.2.2-10 PRODUCTION OF FRUIT AND VEGETABLE IN BOLIVIA

Product	Nation/Dept.	Unit: tons			
		1993/94	1994/95	1995/96	1996/97
Potato	Bolivia	631,999	604,735	715,702	788,715
	Santa Cruz	36,477	50,779	57,800	63,845
	Cochabamba	137,593	125,570	145,000	<u>159,004</u>
Cassava	Bolivia	292,921	298,772	309,328	333,638
	Santa Cruz	158,460	165,000	170,750	<u>185,995</u>
	Cochabamba	32,039	35,246	40,526	43,347
Tomato	Bolivia	48,731	63,637	58,973	80,001
	Santa Cruz	40,419	55,580	48,075	<u>67,625</u>
Banana	Bolivia	100,700	150,928	147,689	146,204
	Santa Cruz	15,405	16,000	18,794	19,644
	Cochabamba	71,955	121,651	114,178	<u>109,880</u>
Platano	Bolivia	328,515	339,191	346,206	366,607
	Santa Cruz	116,400	108,000	112,019	<u>115,358</u>
Soybean	Bolivia	709,892	871,184	861,636	940,820
	Santa Cruz	691,671	853,010	843,030	<u>921,953</u>

Source: Anuario Estadístico 1997 (INE)

Table A.2.2-11 ORIGIN/DESTINATION OF FRUIT AND VEGETABLE IN SANTA CRUZ DEPT. (1994)

Unit: 1,000 tons

	Valley	Low land	SC City	Sub-total	Outside SC	Export	Total
Valley	22	0	52	74	20	0	94
Low land	0	177	38	215	77	0	292
SC City	0	5	0	5	0	0	5
Sub-total	22	182	90	294	97	0	391
Outside SC	0	1	143	144	-	0	1440
Total	22	183	233	438	97	0	535

Source: JICA Study Team, 1994

Table A.2.2-12 ORIGIN/DESTINATION OF ROOT CROP IN SANTA CRUZ DEPT. (1994)

Unit:1,000 tons

	Valley	Low land	SC City	Sub-total	Outside SC	Export	Total
Valley	14	0	7	21	4	0	25
Low land	0	84	10	94	68	0	162
SC City	0	2	0	2	0	0	2
Sub-total	14	86	17	117	72	0	189
Outside SC	0	1	35	36	-	0	36
Total	14	87	52	153	72	0	225

Source: JICA Study Team, 1994

Table A.2.2-13 ORIGIN/DESTINATION OF VEGETABLE IN SANTA CRUZ DEPT. (1994)

Unit:1,000 tons

	Valley	Low land	SC City	Sub-total	Outside SC	Export	Total
Valley	5	0	41	46	15	0	61
Low land	0	20	3	23	0	0	23
SC City	0	2	0	2	0	0	2
Sub-total	5	22	44	71	15	0	86
Outside SC	0	0	39	39	-	0	39
Total	5	22	83	110	15	0	125

Source: JICA Study Team, 1994

Table A.2.2-14 ORIGIN/DESTINATION OF FRUIT IN SANTA CRUZ DEPT. (1994)

Unit: 1,000 tons

	Valley	Low land	SC City	Sub-total	Outside SC	Export	Total
Valley	3	0	4	7	1	0	8
Low land	0	73	25	98	9	0	107
SC City	0	1	0	1	0	0	1
Sub-total	3	74	29	106	10	0	116
Outside SC	0	0	69	69	-	0	69
Total	3	74	98	175	10	0	185

Source: JICA Study Team, 1994

Table A.2.2-15 ORIGIN/DESTINATION OF FRUIT AND VEGETABLE IN SANTA CRUZ DEPT. (1998)

Unit: 1,000 tons

	Valley	Low land	SC City	Sub-total	Outside SC	Export	Total
Valley	21	0	72	93	24	0	117
Lowland	0	212	59	271	91	0	362
SC City	0	0	0	0	0	0	0
Sub-total	21	212	131	364	115	0	479
Outside SC	0	0	143	143	-	0	143
Import	0	0	13	13	0	-	13
Total	21	212	287	520	115	0	635

Source: JICA Study Team, 1998

Table A.2.2-16 ORIGIN/DESTINATION OF ROOT CROP IN SANTA CRUZ DEPT. (1998)

Unit: 1,000 tons

	Valley	Low land	SC City	Sub-total	Outside SC	Export	Total
Valley	13	0	17	30	5	0	35
Lowland	0	101	10	111	81	0	192
SC City	0	0	0	0	0	0	0
Sub-total	13	101	27	141	86	0	227
Outside SC	0	0	26	26	-	0	26
Import	0	0	12	12	0	-	12
Total	13	101	65	179	86	0	265

Source: JICA Study Team, 1998

Table A.2.2-17 ORIGIN/DESTINATION OF VEGETABLE IN SANTA CRUZ DEPT. (1998)

Unit: 1,000 tons

	Valley	Low land	SC City	Sub-total	Outside SC	Export	Total
Valley	5	0	51	56	13	0	69
Lowland	0	25	8	33	5	0	38
SC City	0	0	0	0	0	0	0
Sub-total	5	25	59	89	18	0	107
Outside SC	0	0	43	43	-	0	43
Import	0	0	0	0	0	-	0
Total	5	25	102	132	18	0	150

Source: JICA Study Team, 1998

Table A.2.2-18 ORIGIN/DESTINATION OF FRUIT IN SANTA CRUZ DEPT. (1998)

Unit: 1,000 tons

	Valley	Low land	SC City	Sub-total	Outside SC	Export	Total
Valley	3	0	4	7	6	0	13
Lowland	0	86	41	127	5	0	132
SC City	0	0	0	0	0	0	0
Sub-total	3	86	45	134	11	0	145
Outside SC	0	0	74	74	-	0	74
Import	0	0	1	1	0	-	1
Total	3	86	120	209	11	1	220

Source: JICA Study Team, 1998