

**THE STUDY ON THE IMPROVEMENT
IN QUALITY OF THE TROPICAL FRUITS**

Appendix K
Project Profiles

**APPENDIX K
PROJECT PROFILES**

List of Tables

		<u>Page</u>
Table K-1	Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (1/8 - 8/8)	K-2
Table K-2	Profile of the Candidate Project Site for Orchard Development in West Java Province (1/6 - 6/6).....	K-10
Table K-3	Profile of the Candidate Project Site for Orchard Development in East Java Province (1/8 - 8/8).....	K-16
Table K-4	Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (1/15 - 15/15).....	K-24

APPENDIX K PROJECT PROFILES

Potential areas for orchard development by target fruits were selected by each Provincial Government. In order to grasp the present situation of potential areas for orchard development, the profile of each potential area is prepared regarding the following seven main aspects, clarified by several information:

- Present farm management and seedling production;
- Development plan for the target fruit growing;
- Socio-economic condition of the site;
- Agro-ecological and agro-climate;
- Marketing;
- Post-harvest handling; and
- Infrastructure and facilities.

The profiles of each potential area are presented as shown in Tables K-1 to K-4 of the respective Provinces.

Table K-1 Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (1/8)

Code : NS(DR)-1
 Target Fruit : Durian
 District : Darri

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description	
1.	Present Farm Management & Seedling Production.			4.	Agro-ecology and Agro-climate			
1-1	Cultivated crops	(kind)	Paddy, Secondary crops and Durian	4-1	Topography (configuration of the site)	(type)	Undulating, rolling to hilly	
1-2	Average landholding size of the farm-household	(ha)	0.81	4-2	Slope	(%)	2-40	
1-3	Average cultivation area of the target fruit tree	(ha)	0.2	4-3	Altitude (or elevation)	(m)	500-600	
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Sidkaiang, Orong, Kam, Si Jantung, Si Tembaga	4-4	Annual rainfall	(mm)	1,920	
1-5	No. of planted target fruit trees	(no.)	111,444	4-5	Climate type (No. of wet and dry months)*	(type) :	A.	
1-6	Annual average production in last five years	(ton)	7,210		(1) wet months	(no./month)	10 (Aug-May)	
1-7	Harvest season of the target fruit	(months)	3		(2) dry months	(no./month)	0	
1-8	Current farmgate price of the fruit	(Rp./piece)	500-1,000	4-6	Groundwater depth	(m)	10	
1-9	Production input utilization (manure & chemicals)	(kind)	-		(1) wet months	(m)	12	
1-10	Inter-cropping plan(s)	(kind)	Paddy and Secondary crops	4-7	Soil type	(type)	Yellow red podzolic	
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	5.	Marketing			
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (5) / PPL (75)		(Present Market Situation)			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tam, KUD, etc.)	(kind/no.)	Kelompok Tam (623) / KUD (244) / Kelompok (126)	5-1	No. of local markets within 50 km circle from the site	(no.)	10	
1-14	Available credit services for fruit growing	(kind/no.)	BRI Unit (5)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities	
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Median	
2-1	Target (priority) fruit	(kind)	Durian	5-4	Form of marketed products (fresh - processed)	(state)	Fresh	
2-2	Development land area	(ha)	900		(Marketing Perspective)			
	(1) Short term (up to 2003)	(ha)	300	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/Wholesalers - Towns/Cities - Exports	
	(2) Medium term (2004-2008)	(ha)	300	5-6	Marketing target (district, province, city and/or export)	(targets)	Median and Exports	
	(3) Long term (2009-2018)	(ha)	300	5-7	Form of future market demand (fresh - processed)	(state)	Fresh	
2-3	Target production in short-term auction program	(ton)	1,200	6.	Post-harvest Handling			
2-4	Target productivity per hectare	(ton)	4		(Present Processing Facilities)			
2-5	Variety recommended	(variety)	Si Tembaga, Si Jantung, Orong, Kam	6-1	Existing processing facilities of the target fruit	(type)	No	
2-6	Plant(s) recommended to be inter-cropped	(kind)	Paddy and Secondary crops	6-2	Processed products	(kind)	-	
3.	Socio-economic Condition of the Site				(drying, canning, bottling, processed products, etc.)	(ton/day)	-	
3-1	No. of candidate participant farmers	(no.)	650	6-3	Capacity of the processing facility	(kind)	-	
3-2	No. of villages concerned	(no.)	6		(Enhancement Planning)			
3-3	Distance to the Provincial capital (Road class I)	(km)	150	6-4	Required post-harvest handling activities	(kind)	Packaging / Storage	
3-4	Distance to the District capital (Road class II)	(km)	30		(cleaning, sorting, grading, processing, packaging, etc.)	(kind)	fresh fruit	
3-5	Distance to the Subdistrict capital (Road class III)	(km)	1.5	6-5	Exporting processed products	(kind)	Nil	
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III	7.	Infrastructure and Facilities			
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt		8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Spring
3-8	Distance to the nearest airport/airport	(km)	225		8-2	Possible water source for watering	(kind)	Spring
3-9	Electrification	(yes or no)	No					
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring					

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-1 Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (2/8)

Code : NS(DR)-2
 Target Fruit : Durian
 District : Tapanuli Tengah

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Paddy, Secondary crops and Durian	4-1	Topography (configuration of the site)	(type)	Plain
1-2	Average landholding size of the farm-household	(ha)	1.08	4-2	Slope	(%)	0-2
1-3	Average cultivation area of the target fruit tree	(ha)	0.2	4-3	Altitude (or elevation)	(m)	25-100
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Tembaga and Sibamial, Orong, Kani, Si Jantung, Si Tembaga	4-4	Annual rainfall	(mm)	2,978
1-5	No. of planted target fruit trees	(no.)	58,200	4-5	Climate type (No. of wet and dry months)*	(type)	A)
1-6	Annual average production in last five years	(ton)	3,825		(1) wet months	(no. & month)	12 (Jan-Dec)
1-7	Harvest season of the target fruit	(months)	3		(2) dry months	(no. & month)	0
1-8	Current farmgate price of the fruit	(Rp/ piece)	500-1,500	4-6	Groundwater depth	(m)	3
1-9	Production input utilization (manure & chemicals)	(kind)	Paddy and Secondary crops		(1) wet months	(m)	5
1-10	Inter-cropping plants	(kind)	Seed	4-7	Soil type	(type)	Yellow red podzolic
1-11	Procurement of seedlings (seed, nursery, PPA, etc.)	(source)	Seed	5.	Marketing		
1-12	No. of PPS, and PPLs specialized in horticulture dev.	(no.)	PPS (3) / PPL (8)		(Present Market Situation)		
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (667) / KUD (95)	5-1	No. of local markets within 50 km circle from the site	(no.)	0
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (6)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Median
2-1	Target (priority) fruit	(kind)	Durian	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2,250		(Marketing Prospective)		
	(1) Short term (up to 2003)	(ha)	750	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/Wholesalers - Towns/Cities - Exports
	(2) Medium term (2004-2008)	(ha)	750	5-6	Marketing target (district, provinces, city and/or export)	(targets)	Median and Exports
	(3) Long term (2009-2018)	(ha)	750	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
2-3	Target production in short-term action program	(ton)	3,000	6.	Post-harvest Handling		
2-4	Target productivity per hectare	(ton)	4		(Present Processing Facilities)		
2-5	Variety recommended	(variety)	Orong, Kani, Si Jantung, Si Tembaga	6-1	Existing processing facilities of the target fruit	(type)	No
2-6	Plant(s) recommended to be inter-cropped	(kind)	Secondary crops	6-2	Processed products	(kind)	-
3.	Socio-economic Condition of the Site				(dry, canning, bottling, processed products, etc.)	(ton/day)	-
3-1	No. of candidate participant farmers	(no.)	1170	6-3	Capacity of the processing facility	(ton/day)	-
3-2	No. of villages concerned	(no.)	5		(Enhancement Planning)		
3-3	Distance to the Provincial capital (Road class I)	(km)	300	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Packaging / Storage
3-4	Distance to the District capital (Road class II)	(km)	10	6-5	Expected processed products	(kind)	Fresh fruit
3-5	Distance to the Subdistrict capital (Road class III)	(km)	2		Infrastructure and Facilities		
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt	8-2	Possible water source for watering	(kind)	Groundwater
3-8	Distance to the nearest seaport/ airport	(km)	40				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-1 Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (3/8)

Code : NS(DR)-3
 Target Fruit : Durian
 District : Tapanuli Utara

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Coffee, Durian and Avocado	4-1	Topography (configuration of the site)	(type)	Flat, undulating, rolling, hilly and mountainous
1-2	Average landholding size of the farm-household	(ha)	0.61	4-2	Slope	(%)	2-40
1-3	Average cultivation area of the target fruit tree	(ha)	0.05	4-3	Altitude (or elevation)	(m)	400-700
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Sibanal, Si Tembaga, Si Jantung	4-4	Annual rainfall	(mm)	1,895
1-5	No. of planted target fruit trees	(no.)	219,300	4-5	Climate type (No. of wet and dry months)*	(type)	A2
1-6	Annual average production in last five years	(ton)	2,427	(1) wet months	(no. & month)	10 (Aug-May)	
1-7	Harvest season of the target fruit	(months)	3	(2) dry months	(no. & month)	0	
1-8	Current average price of the fruit	(Rp/ piece)	500-100 per piece	4-6	Groundwater depth	(m)	8
1-9	Production input utilization (manure & chemicals)	(kind)	-	(1) wet months	(m)	12	
1-10	Inter-cropping plants	(kind)	Woods	(2) dry months	(type)	Alluvial, Laterite, Lithesol and Regoso	
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (5) / PPL (179)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kolompok Tan, KUD, etc.)	(kind/ no.)	Kolompok Tan (1,998) / KUD (95)	5-1	No. of local markets within 50 km circle from the site	(no.)	15
1-14	Available credit services for fruit growing	(kind/ no.)	BR Unit (16)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Medan, Tanjung Balai
2-1	Target (priority) fruit	(kind)	Durian	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	1,500	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers Groups - Collectors/Wholesalers - Towns/Cities - Exports
(1)	Short term (up to 2003)	(ha)	500	5-6	Marketing target (district, province, city and/or export)	(targets)	Medan and Exports
(2)	Medium term (2004-2008)	(ha)	500	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
(3)	Long term (2009-2013)	(ha)	2,000	Post-harvest Handling			
2-3	Target production in short-term action program	(ton)	4	(Present Processing Facilities)			
2-4	Target productivity per hectare	(ton)	4	6-1	Existing processing facilities of the target fruit	(type)	No
2-5	Variety recommended	(variety)	Si Tembaga and Si Jantung	6-2	Processed products	(kind)	-
2-6	Plant(s) recommended to be inter-cropped	(kind)	Secondary crops	(drying, canning, bottling, processed products, etc.)	(ton / day)	-	
3.	Socio-economic Condition of the Site			6-3	Capacity of the processing facility	(ton / day)	-
3-1	No. of candidate participant farmers	(no.)	1,150	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Packaging / Storage
3-2	No. of villages concerned	(no.)	3	6-5	Existing processed products	(kind)	Fresh fruit
3-3	Distance to the Provincial capital (Road class I)	(km)	300	Infrastructure and Facilities			
3-4	Distance to the District capital (Road class II)	(km)	30	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-5	Distance to the Subdistrict capital (Road class III)	(km)	5	8-2	Possible water source for watering	(kind)	Groundwater and Spring
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	180				
3-9	Electriciteation	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-1 Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (4/8)

Code : NS(MN)-1
 Target Fruit : Mangosteen
 District : Tapanuli Selatan

No.	Item	Description	Unit	No.	Item	Description	Unit	
1.	Present Farm Management & Seedling Production							
	1-1	Cultivated crops	(kind)		Rubber, Coffee			
	1-2	Average landholding size of the farm-household	(ha)	1.05				
	1-3	Average cultivation area of the target fruit tree	(ha)	0.1				
	1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local				
	1-5	No. of planted target fruit trees	(no.)	17100				
	1-6	Annual average production in last five years	(ton)	2,025				
	1-7	Harvest season of the target fruit	(months)	5				
	1-8	Current farmgate price of the fruit	(Rp./piece)	1,500-3,000				
	1-9	Production input utilization (manure & chemicals)	(kind)	-				
	1-10	Inter-cropping plant(s)	(kind)	Coconut and other fruit				
	1-11	Procurement of seedlings (seed nursery, PKAS, etc.)	(source)	Seed				
	1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (11) / PPL (232)				
	1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (2,353) / KUD (90)				
1-14	Available credit services for fruit growing	(kind/no.)	BRI Unit (14)					
2.	Development Plan for the Target Fruit Growing							
	2-1	Target (priority) fruit	(kind)		Mangosteen			
	2-2	Development land area	(ha)	2800				
	(1)	Short term (up to 2003)	(ha)	800				
	(2)	Medium term (2004-2008)	(ha)	1000				
	(3)	Long term (2009-2018)	(ha)	1000				
	2-3	Target production in short-term action program	(ton)	1600				
	2-4	Target productivity per hectare	(ton)	2				
	2-5	Variety recommended	(variety)	Local				
	2-6	Plant(s) recommended to be inter-cropped	(kind)	Secondary crops				
3.	Socio-economic Condition of the Site							
	3-1	No. of candidate participant farmers	(no.)	2850				
	3-2	No. of villages concerned	(no.)	5				
	3-3	Distance to the Provincial capital (Road class I)	(km)	300				
	3-4	Distance to the District capital (Road class II)	(km)	10				
	3-5	Distance to the Subdistrict capital (Road class III)	(km)	10				
	3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
	3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
	3-8	Distance to the nearest airport	(km)	6				
	3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring					
4.	Agroecology and Agro-climate							
	4-1	Topography (configuration of the site)	(type)		Flat, undulating, rolling and hilly			
	4-2	Slope	(%)	0-25				
	4-3	Altitude (or elevation)	(m)	400-700				
	4-4	Annual rainfall	(mm)	1475				
	4-5	Climate type (No. of wet and dry months)*	(type)	B2				
	(1)	wet months	(no. & months)	7 (Nov-May)				
	(2)	dry months	(no. & months)	2 (June-Jul)				
	4-6	Groundwater depth	(m)	8				
	(1)	wet months	(m)	12				
	(2)	dry months	(m)	12				
	4-7	Soil type	(type)	Alluvial, Latente, Organoso				
	5.	Marketing						
		<i>(Present Market Situation)</i>						
5-1		No. of local markets within 50 km circle from the site	(no.)	8				
5-2		Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities - Exports				
5-3		Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Median / Exports				
5-4		Form of marketed products (fresh - processed)	(state)	Fresh				
<i>(Marketing Prospective)</i>								
5-5		Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities - Exports				
5-6		Marketing target (district, province, city and/or export)	(targets)	Median and Exports				
5-7		Form of future market demand (fresh - processed)	(state)	Fresh				
6.		Postharvest Handling						
		<i>(Present Processing Facilities)</i>						
		6-1	Existing processing facilities of the target fruit	(type)	No			
		6-2	Processed products	(kind)	-			
	(drying, canning, bottling, processed products, etc.)							
	6-3	Capacity of the processing facility	(ton/day)	-				
	<i>(Enhancement Planning)</i>							
	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging				
	6-5	Exporting processed products	(kind)	Fresh fruit for export				
	Infrastructure and Facilities							
8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil					
8-2	Possible water source for watering	(kind)	River and Spring					

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-1 Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (S/S)

Code : NS(MN)-2
 Target Fruit : Mangosteen
 District : Tapanuli Utara

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Coffee, Corn, Pine, apple, Grass	4-1	Topography (configuration of the site)	(type)	Flat, undulating, rolling and hilly
1-2	Average landholding size of the farm-household	(ha)	0.61	4-2	Slope	(%)	6-40
1-3	Average cultivation area of the target fruit tree	(ha)	0.1	4-3	Altitude (or elevation)	(m)	600-800
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local	4-4	Annual rainfall	(mm)	1,898
1-5	No. of planted target fruit trees	(no.)	-	4-5	Climate type (No. of wet and dry months)*	(type)	A2
1-6	Annual average production in last five years	(ton)	-	(1)	wet months	(no.&month)	10 (Aug-May)
1-7	Harvest season of the target fruit	(months)	5	(2)	dry months	(no.&month)	0
1-8	Current farmgate price of the fruit	(Rp/ piece)	1,000-2,500	4-6	Groundwater depth	(m)	K
1-9	Production input utilization (manure & chemicals)	(kind)	Wood and other fruit	(1)	wet months	(m)	12
1-10	Inter-cropping plants	(kind)	Seed	(2)	dry months	(type)	Yellow red podzolic, Regosol, and Lutosol
1-11	Procurement of seedlings (seed, nursery, PRA, etc.)	(source)	Seed	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev. growing farmers (Kolompok Tam, KUD, etc.)	(kind/ no.)	PPS (5) / PPL (212)	5.	Marketing		
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kolompok Tam, KUD, etc.)	(kind/ no.)	Kolompok Tam (1,996) / KUD (95)	5-1	No. of local markets within 50 km circle from the site	(no.)	15
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (16)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities/ Exports
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Median and/or Exports
2-1	Target (priority) fruit	(kind)	Mangosteen	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2500	(Marketing Prospective)			
(1)	Short term (up to 2003)	(ha)	500	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers Groups - Collectors/ Wholesalers -
(2)	Medium term (2004-2008)	(ha)	1000	5-6	Marketing target (district, province, city and/or export)	(targets)	Towns/ Cities - Exports
(3)	Long term (2009-2018)	(ha)	1000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
2-3	Target production in short-term action program	(ton)	1000	6.	Post-harvest Handling		
2-4	Target productivity per hectare	(ton)	2	(Present Processing Facilities)			
2-5	Variety recommended	(variety)	Local	6-1	Existing processing facilities of the target fruit	(type)	No
2-6	Plant(s) recommended to be inter-cropped	(kind)	Secondary crops	6-2	Processed products	(kind)	-
3.	Socio-economic Condition of the Site			6-3	Capacity of the processing facility	(ton / day)	-
3-1	No. of candidate participant farmers	(no.)	1350	(Enhancement Potential)			
3-2	No. of villages concerned	(no.)	1	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-3	Distance to the Provincial capital (Road class I)	(km)	200	6-5	Expected processed products	(kind)	Fresh fruit for export
3-4	Distance to the District capital (Road class II)	(km)	65	7.	Infrastructure and Facilities		
3-5	Distance to the Subdistrict capital (Road class III)	(km)	30	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III	8-2	Possible water source for watering	(kind)	Spring and Groundwater
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	180				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-1 Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (6/8)

Code : NS(MA)-1
 Target Fruit : Marquisa
 District : Karo

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Second crops, Fallow land, Bush	4-1	Topography (configuration of the site)	(type)	Flat, undulating, rolling, hilly and mountainous
1-2	Average landholding size of the farm-household	(ha)	0.95	4-2	Slope	(%)	15-40
1-3	Average cultivation area of the target fruit trees	(ha)	0.5	4-3	Altitude (or elevation)	(m)	800-1,000
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Asam berastagi, Berastagi	4-4	Annual rainfall	(mm)	1,366
1-5	No. of planted target fruit trees	(no.)	8130	4-5	Climate type (No. of wet and dry months)*	(type)	A2
1-6	Annual average production in last five years	(ton)	27		(no./month)	7 (Sep-Dec and Mar-May)	
1-7	Harvest season of the target fruit	(months)	10		(no./month)	0	
1-8	Current farmgate price of the fruit	(Rp./piece)	3000-6000	4-6	Groundwater depth	(m)	10
1-9	Production input utilization (manure & chemicals)	(kind)	-		(m)	15	
1-10	Inter-cropping plan(s)	(kind)	Vegetable	4-7	Soil type	(type)	Andosol and Red yellow podzolic
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	5.	Marketing		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (4) / PPL (92)		(Present Market Situation)		
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (516) / KUD (13)	5-1	No. of local markets within 50 km circle from the site	(no.)	9
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (22)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Processors / Cites
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Brastagi and/or Medan
2-1	Target (priority) fruit	(kind)	Marquisa	5-4	Form of marketed products (fresh - processed)	(state)	Fresh and Processed
2-2	Development land area	(ha)	3000	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Processors
	(1) Short term (up to 2003)	(ha)	1,000	5-6	Marketing target (district, province, city and/or export)	(targets)	Exports
	(2) Medium term (2004-2008)	(ha)	1,000	5-7	Form of future market demand (fresh - processed)	(state)	Processed
	(3) Long term (2009-2018)	(ha)	1,000	6.	Post-harvest Handling		
2-3	Target production in short-term action program	(ton)	8000		(Present Processing Facilities)		
2-4	Target productivity per hectare	(ton)	8	6-1	Existing processing facilities of the target fruit	(type)	Juice / syrup
2-5	Variety recommended	(variety)	Asam Berastagi	6-2	Processed products	(kind)	Fruit juice
2-6	Plant(s) recommended to be inter-cropped	(kind)	Vegetable and Corn	6-3	Capacity of the processing facility	(ton / day)	3-5 ton marquisa per day
3.	Socio-economic Condition of the Site				Enhancement Planning		
3-1	No. of candidate participant farmers	(no.)	1730	6-4	Required post-harvest handling activities	(kind)	Cleaning / Sorting
3-2	No. of villages concerned	(no.)	14	6-5	Expected processed products	(kind)	Drink product
3-3	Distance to the Provincial capital (Road class I)	(km)	85	6-6	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-4	Distance to the District capital (Road class II)	(km)	20	6-7	Possible water source for watering	(kind)	Spring and Groundwater
3-5	Distance to the Subdistrict capital (Road class III)	(km)	6				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II				
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	85				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-1 Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (7/8)

Code : NS(RB)-1
 Target Fruit : Rambutan
 District : Langkat

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Soybean, Corn and Other secondary crops	4-1	Topography (configuration of the site)	(type)	Plain
1-2	Average landholding size of the farm-household	(ha)	1	4-2	Slope	(%)	0-2
1-3	Average cultivation area of the target fruit tree	(ha)	0.4	4-3	Altitude (or elevation)	(m)	10
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Braining, Banjar, Rapih, Si Nona	4-4	Annual rainfall	(mm)	1,790
1-5	No. of planted target fruit trees	(no.)	18892	4-5	Climate type (No. of wet and dry months)*	(type)	A2
1-6	Annual average production in last five years	(ton)	3,823		(1) wet months	(no.&month)	10 (Mar-Dec)
1-7	Harvest season of the target fruit	(months)	5		(2) dry months	(no.&month)	0
1-8	Current farmgate price of the fruit	(Rp./piece)	400-800	4-6	Groundwater depth	(m)	3
1-9	Production input utilization (manure & chemicals)	(kind)	-		(1) wet months	(m)	8
1-10	Inter-cropping plant(s)	(kind)	Paddy and Secondary crops	4-7	Soil type	(type)	Andosol, Regosol, Alluvial, and Yellow red podzolic
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Nursery	5.	Marketing		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (6) / PPL (154)		(Present Market Situation)		
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Jam, KUD, etc.)	(kind/ no.)	Kelompok Tani (1,315) / KUD (34) / Kiosk (52)	5-1	No. of local markets within 50 km circle from the site	(no.)	9
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (14)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities/ Exports
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, submarkets, districts, provinces, towns, cities & export)	(destination)	Medan, Aceh and/or Jakarta
2-1	Target (priority) fruit	(kind)	Rambutan	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	1900	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesaler - Towns/ Cities - Exports
	(1) Short term (up to 2003)	(ha)	500	5-6	Marketing target (district, province, city and/or export)	(targets)	Medan and Exports
	(2) Medium term (2004-2008)	(ha)	900	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
	(3) Long term (2009-2018)	(ha)	500	6.	Post-harvest Handling		
2-3	Target production in short-term action program	(ton)	2300		(Present Processing Facilities)		
2-4	Target productivity per hectare	(ton)	5	6-1	Existing processing facilities of the target fruit	(type)	No
2-5	Variety recommended	(variety)	Brahang	6-2	Processed products	(kind)	-
2-6	Plant(s) recommended to be inter-cropped	(kind)	Secondary crops		(drying, canning, bottling, processed products, etc.)		
3.	Socio-economic Condition of the Site			6-3	Capacity of the processing facility	(ton/day)	-
3-1	No. of candidate participant farmers	(no.)	900		(Enhancement Planning)		
3-2	No. of villages concerned	(no.)	6	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Grading / Packaging
3-3	Distance to the Provincial capital (Road class I)	(km)	60	6-5	Existing processing products	(kind)	-
3-4	Distance to the District capital (Road class II)	(km)	6	7.	Infrastructure and Facilities		
3-5	Distance to the Subdistrict capital (Road class III)	(km)	6	R-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II	R-2	Possible water source for watering	(kind)	Groundwater
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	60				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-1 Profile of the Candidate Project Site for Orchard Development in North Sumatra Province (8/8)

Code : NS(SK)-1
 Target Fruit : Salak
 District : Tapanuli Selatan

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description		
1.	Present Farm Management & Seedling Production								
	1-1	Cultivated crops	(kind)	Forest and Secondary crops	4.	Agro-ecology and Agro-climate			
	1-2	Average landholding size of the farm-household	(ha)	1.05		4-1	Topography (configuration of the site)	(type)	Flat, Undulating, Rolling to hilly
	1-3	Average cultivation area of the target fruit tree	(ha)	0.75		4-2	Slope	(%)	0-25
	1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Padang Sidempuan		4-3	Altitude (or elevation)	(m)	250-700
	1-5	No. of planted target fruit trees	(no.)	13,990,000		4-4	Annual rainfall	(mm)	1,475
	1-6	Annual average production in last five years	(ton)	17,253		4-5	Climate type (No. of wet and dry months)*	(type)	B2
	1-7	Harvest season of the target fruit	(months)	8			(no.&month)	7 (Nov-May) 2 (Jun-Jul)	
	1-8	Current farmgate price of the fruit	(Rp/ piece)	1200		4-6	Groundwater depth	(m)	4
	1-9	Production input utilization (manure & chemicals)	(kind)	•		(1)	wet months	(m)	4
	1-10	Inter-cropping plant(s)	(kind)	•		(2)	dry months	(m)	6
	1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed		4-7	Soil type	(type)	Alluvial, Latente, Regosol, Gramusol, Yellow red - podzolic and Lithosol
	1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (1) / PPL (232)		Marketing			
	1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (2,353) / KUD (90)		<i>(Present Market Situation)</i>			
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (14)	5-1		No. of local markets within 50 km circle from the site	(no.)	6	
2.	Development Plan for the Target Fruit Growing								
	2-1	Target (priority) fruit	(kind)	Salak	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities	
	2-2	Development land area	(ha)	4500	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Medan, Bekasi and/or Jakarta	
	(1)	Short term (up to 2003)	(ha)	1,500	5-4	Form of marketed products (fresh - processed)	(state)	Fresh	
	(2)	Medium term (2004-2008)	(ha)	1500	<i>(Marketing Prospective)</i>				
	(3)	Long term (2009-2018)	(ha)	1500	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities - Exports	
	2-3	Target production in short-term action program	(ton)	10,000	5-6	Marketing target (district, province, city and/or export)	(targets)	Medan and Exports	
	2-4	Target productivity per hectare	(ton)	7	5-7	Form of future market demand (fresh - processed)	(state)	Fresh	
	2-5	Variety recommended	(variety)	Padang Sidempuan	Post-harvest Handling				
	2-6	Plant(s) recommended to be inter-cropped	(kind)	Secondary crops	<i>(Present Processing Facilities)</i>				
3.	Socio-economic Condition of the Site								
	3-1	No. of candidate participant farmers	(no.)	2340	6-1	Existing processing facilities of the target fruit	(type)	No	
	3-2	No. of villages concerned	(no.)	7	6-2	Processed products	(kind)	-	
	3-3	Distance to the Provincial capital (Road class I)	(km)	280	(Drying, canning, bottling, processed products, etc.)				
	3-4	Distance to the District capital (Road class II)	(km)	30	6-3	Capacity of the processing facility	(ton/day)	-	
	3-5	Distance to the Subdistrict capital (Road class III)	(km)	5	<i>(Enhancement Planning)</i>				
	3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Grading / Packaging	
	3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt	6-5	Exporting processed products	(kind)	-	
	3-8	Distance to the nearest seaport/airport	(km)	10	Infrastructure and Facilities				
	3-9	Electrification	(yes or no)	Yes	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil	
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring / River	8-2	Possible water source for watering	(kind)	Groundwater		

Note : *Schmidt and Ferguson, Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-2 Profile of the Candidate Project Site for Orchard Development in West Java Province (1/6)

Code : WJ(AV)-1
 Target Fruit : Avocado
 District : Bandung

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1. Present Farm Management & Seedling Production							
1-1	Cultivated crops	(kind)	Paddy, Corn	4	Agroecology and Agro-climate	(type)	Flat, rolling to hilly
1-2	Average landholding size of the farm-household	(ha)	0.3	4-1	Topography (configuration of the site)	(%)	15 - 38
1-3	Average cultivation area of the target fruit tree	(ha)	0.08	4-2	Slope	(m)	600 - 1,000
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Ciulangka, Local	4-3	Altitude (or elevation)	(mm)	1,180
1-5	No. of planted target fruit trees	(no.)	50,093	4-4	Annual rainfall	(type)	B1
1-6	Annual average production in last five years	(ton)	3	4-5	Climate type (No. of wet and dry months)*	(no. & month)	1 (Aug-Jun)
1-7	Harvest season of the target fruit	(months)	400			(no. & month)	1 (Jul)
1-8	Current farmgate price of the fruit	(Rp./ piece)		4-6	Groundwater depth	(m)	3 - 5
1-9	Production input utilization (manure & chemicals)	(kind)	Paddy, Corn and Cassava			(m)	8 - 10
1-10	Inter-cropping plant(s)	(kind)	Nursery	4-7	Soil type	(type)	Alluvial
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	PPS (4) / PPL (187)	Marketing			
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	Kelompok Tani (2,714) /	<i>(Present Market Situation)</i>			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	KUD (50) / Kiosk (199)	5-1	No. of local markets within 50 km circle from the site	(no.)	16
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (42)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns
2. Development Plan for the Target Fruit Growing							
2-1	Target (priority) fruit	(kind)	Avocado	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Bandung, Jakarta
2-2	Development land area	(ha)	1600	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
(1)	Short term (up to 2003)	(ha)	500	<i>(Marketing Perspective)</i>			
(2)	Medium term (2004-2008)	(ha)	600	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Cities/ Exports
(3)	Long term (2009-2018)	(ha)	500	5-6	Marketing target (district, province, city and/or export)	(targets)	Jakarta, Exports
2-3	Target production in short-term action program	(ton)	2,500	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
2-4	Target productivity per hectare	(ton)	5	Post-harvest Handling			
2-5	Variety recommended	(variety)	[to Bundar	<i>(Prevent Processing Facilities)</i>			
2-6	Plant(s) recommended to be inter-cropped	(kind)	Paddy and Corn	6-1	Existing processing facilities of the target fruit	(type)	No
3. Socio-economic Condition of the Site							
3-1	No. of candidate participant farmers	(no.)	294	6-2	Processed products	(kind)	-
3-2	No. of villages concerned	(no.)	3			(ton / day)	-
3-3	Distance to the Provincial capital (Road class I)	(km)	30	6-3	Capacity of the processing facility	(kind)	-
3-4	Distance to the District capital (Road class II)	(km)	20	<i>(Enhancement Planning)</i>			
3-5	Distance to the Subdistrict capital (Road class III)	(km)	10	6-4	Required post-harvest handling activities	(kind)	Grading / Packing
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	I			(kind)	Dry fruit / Juice
3-7	Road condition of the road to Subdistrict capital	(material)	Hourux	6-5	Expected processed products	(kind)	-
3-8	Distance to the nearest seaport/ airport	(km)	130	Infrastructure and Facilities			
3-9	Electricification	(yes or no)	Yes	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring	8-2	Possible water source for watering	(kind)	Groundwater

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-2 Profile of the Candidate Project Site for Orchard Development in West Java Province (2/6)

Code : WJ(DKS)-1

Target Fruit : Duku

District : Ciamis

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1. Present Farm Management & Seedling Production							
1-1	Cultivated crops	(kind)	Cocunut				
1-2	Average landholding size of the farm-household	(ha)	0.3				
1-3	Average cultivation area of the target fruit trees	(ha)	0.1				
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Kernaharja				
1-5	No. of planted target fruit trees	(no.)	155266				
1-6	Annual average production in last five years	(ton)	2.521				
1-7	Harvest season of the target fruit	(months)	2				
1-8	Current farmgate price of the fruit	(Rp./piece)	1,500 - 3,000				
1-9	Production input utilization (manure & chemicals)	(kind)	-				
1-10	inter-cropping plant(s)	(kind)	Cocunut				
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Nursery				
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (7) / PPL (181)				
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (2,455) / KUD (37)				
1-14	Available credit services for fruit growing	(kind/no.)	BRI Unit (52)				
2. Development Plan for the Target Fruit Growing							
2-1	Target (priority) fruit	(kind)	Duku				
2-2	Development land area	(ha)	41.25				
(1)	Short term (up to 2003)	(ha)	500				
(2)	Medium term (2004-2008)	(ha)	1625				
(3)	Long term (2009-2018)	(ha)	2000				
2-3	Target production in short-term action program	(ton)	250				
2-4	Target productivity per hectare	(ton)	1				
2-5	Variety recommended	(variety)	Palemhany				
2-6	Plant(s) recommended to be inter-cropped	(kind)	Secondary crops				
3. Socio-economic Condition of the Site							
3-1	No. of candidate participant farmers	(no.)	2083				
3-2	No. of villages concerned	(no.)	1				
3-3	Distance to the Provincial capital (Road class I)	(km)	80				
3-4	Distance to the District capital (Road class II)	(km)	30				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	10				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	I				
3-7	Road condition of the road to Subdistrict capital	(material)	Bitmix				
3-8	Distance to the nearest airport/airport	(km)	160				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				
4. Agro-ecology and Agro-climate							
4-1	Topography (configuration of the site)	(type)	Rolling				
4-2	Slope	(%)	15 - 40				
4-3	Altitude (or elevation)	(m)	100 - 350				
4-4	Annual rainfall	(mm)	3,076				
4-5	Climate type (No. of wet and dry months)*	(type)	B2				
(1)	wet months	(no. & month)	7 (Nov-May)				
(2)	dry months	(no. & month)	2 (Aug-Sep)				
4-6	Groundwater depth	(m)	4 - 5				
(1)	wet months	(m)	10 - 12				
(2)	dry months	(m)	Latsoel				
4-7	Soil type	(type)					
5. Marketing							
<i>(Present Market Situation)</i>							
5-1	No. of local markets within 50 km circle from the site	(no.)	12				
5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities				
5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local, Bandung				
5-4	Form of marketed products (fresh - processed)	(state)	Fresh				
<i>(Marketing Prospective)</i>							
5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers Groups - Collectors/ Wholesalers - Cities/ Exports				
5-6	Marketing target (district, province, city and/or export)	(targets)	Bandung, Exports				
5-7	Form of future market demand (fresh - processed)	(state)	Fresh				
6. Post-harvest Handling							
<i>(Present Processing Facilities)</i>							
6-1	Existing processing facilities of the target fruit	(type)	No				
6-2	Processed products	(kind)	-				
6-3	Capacity of the processing facility	(ton/day)	-				
<i>(Enhancement Planning)</i>							
6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packing				
6-5	Expected processed products	(kind)	Canned fruit				
7. Infrastructure and Facilities							
7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil				
7-2	Possible water source for watering	(kind)	Spring				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-2 Profile of the Candidate Project Site for Orchard Development in West Java Province (3/6)

Code : WJ(DR)-1
 Target Fruit : Durian
 District : Bogor

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1. Present Farm Management & Seedling Production							
1-1	Cultivated crops	(kind)	Paddy, Banana and Secondary crops				
1-2	Average landholding size of the farm-household	(ha)	0.3				
1-3	Average cultivation area of the target fruit tree	(ha)	0.1				
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Sitokong, Kani, Otong, Marahan				
1-5	No. of planted target fruit trees	(no.)	Hepi, Boker, Sirwig, Mis				
1-6	Annual average production in last five years	(ton)	129,627				
1-7	Harvest season of the target fruit	(months)	10, 163				
1-8	Current farmgate price of the fruit	(Rp/ piece)	5				
1-9	Production input utilization (manure & chemicals)	(kind)	4600				
1-10	Inter-cropping plants	(kind)	-				
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Paddy, Banana, Cassava				
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	Seed				
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	PPS (3 / PPL (128) Kelompok Tani (2.400) / KUD (47)				
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (32) / BPR (43) / Others (18)				
2. Development Plan for the Target Fruit Growing							
2-1	Target (priority) fruit	(kind)	-				
2-2	Development land area	(ha)	Dunan				
(1)	Short term (up to 2003)	(ha)	5,000				
(2)	Medium term (2004-2008)	(ha)	500				
(3)	Long term (2009-2018)	(ha)	2000				
2-3	Target production in short-term action program	(ton)	2,500				
2-4	Target productivity per hectare	(ton)	4,600				
2-5	Variety recommended	(variety)	9-2				
2-6	Plant(s) recommended to be inter-cropped	(kind)	Marabari, Hepi, Otong Banana and Corn				
3. Socio-economic Condition of the Site							
3-1	No. of candidate participant farmers	(no.)	263				
3-2	No. of villages concerned	(no.)	3				
3-3	Distance to the Provincial capital (Road class I)	(km)	180				
3-4	Distance to the District capital (Road class II)	(km)	30				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	10				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Compact soil				
3-8	Distance to the nearest seaport/ airport	(km)	80				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				
4. Agro-ecology and Agro-climate							
4-1	Topography (configuration of the site)	(type)	Rolling to hilly				
4-2	Slope	(%)	15 - 30				
4-3	Altitude (or elevation)	(m)	150 - 700				
4-4	Annual rainfall	(mm)	2,306				
4-5	Climate type (No. of wet and dry months)*	(type)	A2				
(1)	wet months	(no. & months)	11 (Aug-Jun)				
(2)	dry months	(no. & months)	0				
4-6	Groundwater depth	(m)	10				
(1)	wet months	(m)	15				
(2)	dry months	(m)	-				
4-7	Soil type	(type)	Yellow Red Podzolic, Grumosol, Andosol, Latosol and Alluvial				
5. Marketing							
<i>(Present Market Situation)</i>							
5-1	No. of local markets within 50 km circle from the site	(no.)	9				
5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities				
5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local, Bogor				
5-4	Form of marketed products (fresh - processed)	(state)	Fresh				
<i>(Marketing Prospective)</i>							
5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Cities/ Exports				
5-6	Marketing target (district, province, city and/or export)	(targets)	Bogor				
5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed				
6. Post-harvest Handling							
<i>(Present Processing Facilities)</i>							
6-1	Existing processing facilities of the target fruit	(type)	No				
6-2	Processed products	(kind)	-				
<i>(Dry, Canning, Baking, Processed products, etc.)</i>							
6-3	Capacity of the processing facility	(ton/ day)	-				
<i>(Enhancement Planning)</i>							
6-4	Required post-harvest handling activities	(kind)	Packaging				
<i>(cleaning, sorting, grading, processing, packaging, etc.)</i>							
6-5	Exporting processed products	(kind)	Fresh fruit				
7. Infrastructure and Facilities							
7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil				
7-2	Possible water sources for watering	(kind)	Spring				

Note : *Schmidt and Harguason Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-2 Profile of the Candidate Project Site for Orchard Development in West Java Province (4/6)

Code : WJ(SK)-1

Target Fruit : Salak

District : Tasikmalaya

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description	
1.	Present Farm Management & Seedling Production			4.	Agronomy and Agro-climate			
	1-1	Cultivated crops	(kind)		4-1	Topography (configuration of the site)	(type)	Undulating to hilly
	1-2	Average landholding size of the farm-household	(ha)		4-2	Slope	(%)	15 - 30
	1-3	Average cultivation area of the target fruit tree	(ha)		4-3	Altitude (or elevation)	(m)	300 - 500
	1-4	Prevailing cultivated varieties of the target fruit trees	(variety)		4-4	Annual rainfall	(mm)	12,040
	1-5	No. of planted target fruit trees	(no.)		4-5	Climate type (No. of wet and dry months)*	(type)	A1
	1-6	Annual average production in last five years	(ton)		(1) wet months	(no./month)	12 (Jan-Dec)	
	1-7	Harvest season of the target fruit	(months)		(2) dry months	(no./month)	0	
	1-8	Current farmgate price of the fruit	(Rp./piece)		4-6	Groundwater depth	(m)	3-5
	1-9	Production input utilization (manure & chemicals)	(kind)		(1) wet months	(m)	8-10	
	1-10	Inter-cropping plants	(kind)		(2) dry months	(type)	Lavosol and Yellow Red Podzolic	
	1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)		4-7	Soil type		
	1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)		Marketing			
	1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)		5-1	No. of local markets within 50 km circle from the site	(no.)	14
1-14	Available credit services for fruit growing	(kind/no.)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities		
2.	Development Plan for the Target Fruit Growing			5.	Present Market Situation			
	2-1	Target (priority) fruit	(kind)		5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Sandung, Jakarta
	2-2	Development land area	(ha)		5-4	Form of marketed products (fresh - processed)	(state)	Fresh
	(1)	Short term (up to 2003)	(ha)		5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Cities/ Exports
	(2)	Medium term (2004-2008)	(ha)		5-6	Marketing target (district, province, city and/or export)	(targets)	Jakarta
	(3)	Long term (2009-2018)	(ha)		5-7	Form of future market demand (fresh - processed)	(state)	Fresh
	2-3	Target production in short-term action program	(ton)		6.	Post-harvest Handling		
	2-4	Target productivity per hectare	(ton)		6-1	Existing processing facilities of the target fruit	(type)	No
	2-5	Variety recommended	(variety)		6-2	Processed products	(kind)	-
	2-6	Plant(s) recommended (to be inter-cropped)	(kind)		6-3	Capacity of the processing facility (drying, canning, boiling, processed products, etc.)	(ton/day)	-
3.	Socio-economic Condition of the Site			6.	Enhancement Planning			
	3-1	No. of candidate participant farmers	(no.)		6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Grading / Packaging
	3-2	No. of villages concerned	(no.)		6-5	Existing processed products	(kind)	Fresh fruit
	3-3	Distance to the Provincial capital (Road class I)	(km)		7.	Infrastructure and Facilities		
	3-4	Distance to the District capital (Road class II)	(km)		7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
	3-5	Distance to the Subdistrict capital (Road class III)	(km)		7-2	Possible water source for watering	(kind)	Groundwater and Stream
	3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)					
	3-7	Road condition of the road to Subdistrict capital	(material)					
	3-8	Distance to the nearest seaport/ airport	(km)					
	3-9	Electrification	(yes or no)					
3-10	Source of drinking water (well, spring, river, etc.)	(kind)						

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-2 Profile of the Candidate Project Site for Orchard Development in West Java Province (5/6)

Code : WJ(MO)-1
 Target Fruit : Mango
 District : Sumedang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description	
1.	Present Farm Management & Seedling Production							
	1-1	Cultivated crops	(kind)	Secondary crops and Mango	4.	Agroecology and Agro-climate		
	1-2	Average landholding size of the farm-household	(ha)	0.25	4-1	Topography (configuration of the site)	(type)	Flat to undulating
	1-3	Average cultivation area of the target fruit tree	(ha)	0.03	4-2	Slope	(%)	0 - 15
	1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Arumanis, Cengkar, Gedong, Manalagi, Indramayu, Manalagi 69	4-3	Altitude (or elevation)	(m)	25 - 100
	1-5	No. of planted target fruit trees	(no.)	287,863	4-4	Annual rainfall	(mm)	2,275
	1-6	Annual average production in last five years	(ton)	7,340	4-5	Climate type (No. of wet and dry months)*	(type)	B2
	1-7	Harvest season of the target fruit	(months)	3	4-5	Climate type (No. of wet and dry months)**	(no. & month)	7 (Oct-Apr)
	1-8	Current farmgate price of the fruit	(Rp./piece)	-	4-6	(1) wet months	(no. & month)	2 (Jul-Aug)
	1-9	Production input utilization (manure & chemicals)	(kind)	1,000 - 1,500	4-6	(2) dry months	(no. & month)	2 (Jul-Aug)
	1-10	Inter-cropping plan(s)	(kind)	-	4-6	Groundwater depth	(m)	2
	1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Upland rice and Secondary Crop	4-6	(1) wet months	(m)	10
	1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	Nursery	4-7	(2) dry months	(m)	10
	1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	PPS (8) / PPL (146) Kelompok Tani (1312) / KUD (27) / Kiosk (264)	4-7	Soil type	(type)	Alluvial, Andosol, Grumosol and Yellow Red Podzolic
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (24)	5.	Marketing			
2.	Development Plan for the Target Fruit Growing							
	2-1	Target (priority) fruit	(kind)	Mango	5-1	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Bandung, Sumedang
	2-2	Development land area	(ha)	2,700	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
	(1) ... Short term (up to 2003)	(ha)	2,700	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/Wholesaler - Cines/ Exports	
	(2) ... Medium term (2004-2008)	(ha)	1000	5-6	Marketing target (district, province, city and/or export)	(targets)	Bandung / Export	
	(3) ... Long term (2009-2018)	(ha)	1200	5-7	Form of future market demand (fresh - processed)	(state)	Fresh	
	2-3	Target production in short-term action program	(ton)	500	6.	Post-harvest Handling		
	2-4	Target productivity per hectare	(ton)	10,000	6-1	Existing processing facilities of the target fruit	(type)	No
	2-5	Variety recommended	(variety)	10	6-2	Existing processing facilities of the target fruit	(kind)	-
	2-6	Plant(s) recommended to be inter-cropped	(kind)	Arumanis 143, Gedongmencu, Manalagi 69	6-3	Capacity of the processing facility (drying, canning, bottling, processed products, etc.)	(ton / day)	-
3.	Socio-economic Condition of the Site							
	3-1	No. of candidate participant farmers	(no.)	2500	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
	3-2	No. of villages concerned	(no.)	15	6-5	Expected processed products (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Dried fruit / Sweets (Manisan)
	3-3	Distance to the Provincial capital (Road class I)	(km)	180	6-6	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Spot filling system by pumped-up water from river
	3-4	Distance to the District capital (Road class II)	(km)	30	6-7	Possible water source for watering	(kind)	Groundwater and river
	3-5	Distance to the Subdistrict capital (Road class III)	(km)	5	7.	Infrastructure and Facilities		
	3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II	7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Spot filling system by pumped-up water from river
	3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt	7-2	Possible water source for watering	(kind)	Groundwater and river
	3-8	Distance to the nearest seaport/ airport	(km)	180				
	3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well					

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-2 Profile of the Candidate Project Site for Orchard Development in West Java Province (6/6)

Code : WJ(MO)-1
 Target Fruit : Mangosteen
 District : Purwakarta

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agroecology and Agro-climate		
1-1	Cultivated crops	(kind)	Tea and Clove	4-1	Topography (contour/gradient of the site)	(type)	Undulating to Rolling
1-2	Average landholding size of the farm-household	(ha)	0.5	4-2	Slope	(%)	15 - 40
1-3	Average cultivation area of the target fruit tree	(ha)	0.25	4-3	Altitude (or elevation)	(m)	25 - 500
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local	4-4	Annual rainfall	(mm)	4,470
1-5	No. of planted target fruit trees	(no.)		4-5	Climate type (No. of wet and dry months)*	(type)	A1
1-6	Annual average production in last five years	(ton)	39,192	(1)	wet months	(no./month)	12 (Jan-Dec)
1-7	Harvest season of the target fruit	(months)	285.1	(2)	dry months	(no./month)	0
1-8	Current farmgate price of the fruit	(Rp/ piece)	4	4-6	Groundwater depth	(m)	8 - 10
1-9	Production input utilization (manure & chemicals)	(kind)	2000	(1)	wet months	(m)	18 - 20
1-10	Inter-cropping plan(s)	(kind)	-	(2)	dry months	(type)	Alluvial, Andosol and Lithoso
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Tea and Banana	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	Nursery	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	PPS (1) / PPL (5)	5-1	No. of local markets within 50 km circle from the site	(no.)	8
1-14	Available credit services for fruit growing	(kind/ no.)	Kelompok Tani (288) / KUD (17) / Krosok (11)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities/ Exports
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local, Jakarta, Export
2-1	Target (priority) fruit	(kind)	BIRU (1)	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	Mangosteen	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers Groups - Collectors/Wholesalers - Cities/ Exports
(1)	Short term (up to 2003)	(ha)	2,439	5-6	Marketing target (district, province, city and/or export)	(targets)	Jakarta / Export
(2)	Medium term (2004-2008)	(ha)	500	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
(3)	Long term (2009-2018)	(ha)	1000	6.	Post-harvest Handling		
2-3	Target production in short-term action program	(ton)	939	6-1	Existing processing facilities of the target fruit	(type)	No
2-4	Target productivity per hectare	(ton)	2,000	6-2	Processed products	(kind)	-
2-5	Variety recommended	(variety)	4	(drying, canning, bottling, processed products, etc.)			
2-6	Plant(s) recommended to be inter-cropped	(kind)	Local	6-3	Capacity of the processing facility	(ton/day)	-
3.	Socio-economic Condition of the Site		Secondary crops	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-1	No. of candidate participant farmers	(no.)	1830	6-5	Existing processing products	(kind)	Fresh fruit
3-2	No. of villages concerned	(no.)	5	Infrastructure and Facilities			
3-3	Distance to the Provincial capital (Road class I)	(km)	80	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Pipeline from spring by individual farmers
3-4	Distance to the District capital (Road class II)	(km)	25	8-2	Possible water source for watering	(kind)	Spring
3-5	Distance to the Subdistrict capital (Road class III)	(km)	6				
3-6	Road class of the road to Subdistrict capital. (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	85				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-3 Profile of the Candidate Project Site for Orchard Development in East Java Province (1/8)

Code : EJ(AV)-1
 Target Fruit : Avocado
 District : Lumajang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description		
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate				
	1-1	Cultivated crops	(kind)		4-1	Topography (configuration of the site)	(type)	Plain, rolling to hilly	
	1-2	Average landholding size of the farm-household	(ha)		4-2	Slope	(%)	2-15 to 15-40	
	1-3	Average cultivation area of the target fruit tree	(ha)		4-3	Altitude (or elevation)	(m)	100-700	
	1-4	Prevailing cultivated varieties of the target fruit trees	(variety)		4-4	Annual rainfall	(mm)	2,217	
	1-5	No. of planned target fruit trees	(no.)		4-5	Climate type (No. of wet and dry months)*	(type)	B2	
	1-6	Annual average production in last five years	(ton)				(no.&month)	8 (Oct-Apr and Jun)	
	1-7	Harvest season of the target fruit	(months)				(no.&month)	3 (Jul-Sep)	
	1-8	Current farmgate price of the fruit	(Rp/ piece)		4-6	Groundwater depth	(m)	15	
	1-9	Production input utilization (manure & chemicals)	(kind)				(m)	30	
	1-10	Inter-cropping plants	(kind)		Corn and Second crops	4-7	Soil type	(type)	Mediterranean, Latosol, and Regosol
	1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)		Seed				
	1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)		PPS (9) / PPL (118)				
	1-13	Existence of nucleus institution for growing fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)		Kelompok Tani (1.120) / KUD (29)				
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (15)						
2.	Development Plan for the Target Fruit Growing			5.	Marketing				
	2-1	Target (priority) fruit	(kind)		Avocado				
	2-2	Development land area	(ha)		3000				
	(1)	Short term (up to 2003)	(ha)		1,000				
	(2)	Medium term (2004-2008)	(ha)		1000				
	(3)	Long term (2009-2018)	(ha)		1000				
	2-3	Target production in short-term action program	(ton)		6000				
	2-4	Target productivity per hectare	(ton)		6				
	2-5	Variety recommended	(variety)		Up.pamang				
	2-6	Plant(s) recommended to be inter-cropped	(kind)		Corn and Second crops				
3.	Socio-economic Condition of the Site			6.	Post-harvest Handling				
	3-1	No. of candidate participant farmers	(no.)		2670				
	3-2	No. of villages concerned	(no.)		13				
	3-3	Distance to the Provincial capital (Road class I)	(km)		85				
	3-4	Distance to the District capital (Road class II)	(km)		30				
	3-5	Distance to the Subdistrict capital (Road class III)	(km)		7				
	3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)		III				
	3-7	Road condition of the road to Subdistrict capital	(material)		Asphalt				
	3-8	Distance to the nearest seaport/airport	(km)		30				
	3-9	Electrication	(yes or no)		Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well / Pipe						
7.	Infrastructure and Facilities			7.	Infrastructure and Facilities				
	7-1	Existing processing facilities of the target fruit	(type)		No				
	7-2	Processed products	(kind)		-				
	7-3	Capacity of the processing facility	(ton / day)		-				
	7-4	Required post-harvest handling activities	(kind)		Cleaning / Sorting / Grading / Packaging				
	7-5	Existing processing products	(kind)		Dried fruit				
	7-6	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)		Nil				
	7-7	Possible water source for watering	(kind)		Groundwater and Spring				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-3 Profile of the Candidate Project Site for Orchard Development in East Java Province (2/8)

Code : EJ(BA)-1
 Target Fruit : Banana
 District : Jombang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1. Present Farm Management & Seedling Production							
1-1	Cultivated crops	(kind)	Corn, Cassava	4. Agroecology and Agro-climate			
1-2	Average landholding size of the farm-household	(ha)	0.33	4-1	Topography (configuration of the site)	(type)	Plain
1-3	Average cultivation area of the target fruit tree	(ha)	0.25	4-2	Slope	(%)	0-2
1-4	Preserving cultivated varieties of the target fruit trees	(variety)	Cavendish, Ambon Kuning	4-3	Altitude (or elevation)	(m)	2-46
1-5	No. of planned target fruit trees	(no.)	725149	4-4	Annual rainfall	(mm)	1.786
1-6	Annual average production in last five years	(ton)	9.867	4-5	Climate type (No. of wet and dry months)*	(type)	B3
1-7	Harvest season of the target fruit	(months)	12		(no.&month)	6 (Nov-Apr)	
1-8	Current farmgate price of the fruit	(Rp/ piece)	5.000-6.000 per bunch		(no.&month)	5 (Jun-Oct)	
1-9	Production input utilization (manure & chemicals)	(kind)		4-6	Groundwater depth	(m)	2
1-10	Inter-cropping plants	(kind)	Corn, Cassava		(1) wet months	(m)	6
1-11	Procurement of seedlings (seed, nursery, PRAX, etc.)	(source)	Seed	4-7	Soil type	(type)	Latosol
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (5) / PPL (121)	5. Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (1310) / KUD(27)		(Prevent Market Situation)		
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (17)	5-1	No. of local markets within 50 km circle from the site	(no.)	13
2. Development Plan for the Target Fruit Growing							
2-1	Target (priority) fruit	(kind)	Banana	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(destination)	Local, Surabaya of Exports
2-2	Development land area	(ha)	2000		(districts, provinces, towns, cities & export)	(state)	Fresh and Processed
(1)	Short term (up to 2003)	(ha)	500	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(state)	Fresh and Processed
(2)	Medium term (2004-2008)	(ha)	750	5-4	Form of marketed products (fresh - processed)	(flow)	Farmers - Farmers' Groups - Processors
(3)	Long term (2009-2018)	(ha)	750	(Marketing Prospective)			
2-3	Target production in short-term action program	(ton)	10000	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Processors
2-4	Target productivity per hectare	(ton)	20	5-6	Marketing target (district, province, city and/or export)	(targets)	Exports
2-5	Variety recommended	(variety)	Cavendish, Ambon Kuning	5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed
2-6	Plant(s) recommended to be inter-cropped	(kind)	Corn and Cassava	6. Postharvest Handling			
3. Socio-economic Condition of the Site							
3-1	No. of candidate participant farmers	(no.)	3593	6-1	Existing processing facilities of the target fruit	(type)	Puree
3-2	No. of villages concerned	(no.)	26	6-2	Processed products	(kind)	Puree
3-3	Distance to the Provincial capital (Road class I)	(km)	100		(drying, canning, bottling, processed products, etc.)	(ton / day)	2 ton puree/hour
3-4	Distance to the District capital (Road class II)	(km)	30	6-3 Capacity of the processing facility			
3-5	Distance to the Subdistrict capital (Road class III)	(km)	5	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	I	6-5	Expected processed products	(kind)	Puree, Fresh fruit for export
3-7	Road condition of the road to Subdistrict capital	(material)	Hotmix	7. Infrastructure and Facilities			
3-8	Distance to the nearest seaport/ airport	(km)	60	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Shallow casing well with movable pump and engine set
3-9	Electrification	(yes or no)	Yes	8-2	Possible water source for watering	(kind)	Groundwater
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-3 Profile of the Candidate Project Site for Orchard Development in East Java Province (3/8)

Code : EJ(BA)-2
 Target Fruit : Banana
 District : Lumajang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1. Present Farm Management & Seedling Production							
1-1	Cultivated crops	(kind)	Corn, Cassava and Mungbean				
1-2	Average landholding size of the farm-household	(ha)	0.47				
1-3	Average cultivation area of the target fruit tree	(ha)	0.2				
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Agung, Cavendish, Raja Bulu,				
1-5	No. of planted target fruit trees	(no.)	Ambon Kuning				
1-6	Annual average production in last five years	(ton)	1,464.745				
1-7	Harvest season of the target fruit	(months)	22-43x				
1-8	Current farmgate price of the fruit	(Rp./piece)	12				
1-9	Production input utilization (manure & chemicals)	(kind)	9000 per bunch				
1-10	Inter-cropping plant(s)	(kind)	-				
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Corn and Cassava				
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	Seed				
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	PPS (9 / PPL (11x) Kelompok Tani (1,120) / KUD (29)				
1-14	Available credit services for fruit growing	(kind/no.)	BRI Unit (15)				
2. Development Plan for the Target Fruit Growing							
2-1	Target (priority) fruit	(kind)	Banana				
2-2	Development land area	(ha)	1,500				
(1)	Short term (up to 2003)	(ha)	500				
(2)	Medium term (2004-2008)	(ha)	500				
(3)	Long term (2009-2018)	(ha)	500				
2-3	Target production in short-term action program	(ton)	10,000				
2-4	Target productivity per hectare	(ton)	20				
2-5	Variety recommended	(variety)	Ambon Kuning, Raja Bulu, Cavendish,				
2-6	Plant(s) recommended to be inter-cropped	(kind)	Agung, Corn and Cassava				
3. Socio-economic Condition of the Site							
3-1	No. of candidate participant farmers	(no.)	2670				
3-2	No. of villages concerned	(no.)	13				
3-3	Distance to the Provincial capital (Road class I)	(km)	85				
3-4	Distance to the District capital (Road class II)	(km)	30				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	5				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest airport/ airport	(km)	30				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well / Spring				
4. Agroecology and Agro-climate							
4-1	Topography (configuration of the site)	(type)	Plain to hilly				
4-2	Slope	(%)	0-2 to 15-40				
4-3	Altitude (or elevation)	(m)	10-700				
4-4	Annual rainfall	(mm)	2,217				
4-5	Climate type (No. of wet and dry months)*	(type)	B2				
(1)	wet months	(no./month)	8 (Oct-Apr and Jun)				
(2)	dry months	(no./month)	3 (Jul-Sep)				
4-6	Groundwater depth	(m)	3				
(1)	wet months	(m)	5				
(2)	dry months	(type)	Regosol and Latosol				
4-7	Soil type	(type)	-				
5. Marketing							
5-1	No. of local markets within 50 km circle from the site	(no.)	9				
5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities				
5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Towns/ Cities Local and Surabaya				
5-4	Form of marketed products (fresh - processed)	(state)	Fresh				
5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities				
5-6	Marketing target (district, province, city and/or export)	(targets)	Local and Surabaya				
5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed				
6. Post-harvest Handling							
6-1	Existing processing facilities of the target fruit	(type)	No				
6-2	Processed products (drying, canning, bottling, processed products, etc.)	(kind)	-				
6-3	Capacity of the processing facility (Enhancement Planning)	(ton/day)	-				
6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Packaging				
6-5	Exporting processed products	(kind)	Fried chips / Dried fruit				
6-6	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	1) Shallow casing well with movable pump & engine 2) Groundwater development project by World Bank				
6-7	Possible water source for watering	(kind)	Groundwater				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-3 Profile of the Candidate Project Site for Orchard Development in East Java Province (4/8)

Code : EJ(DK)-1
 Target Fruit : Duku
 District : Tulungagung

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agroecology and Agro-climate		
1-1	Cultivated crops	(kind)	Cassava, Corn and Bean	4-1	Topography (configuration of the site)	(type)	Plain
1-2	Average landholding size of the farm-household	(ha)	0.37	4-2	Slope	(%)	0-2
1-3	Average cultivation area of the target fruit tree	(ha)	0.1	4-3	Altitude (or elevation)	(m)	55-100
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Srigading	4-4	Annual rainfall	(mm)	1,730
1-5	No. of planted target fruit trees	(no.)		4-5	Climate type (No. of wet and dry months)*	(type)	B2
1-6	Annual average production in last five years	(ton)	14,000		(no. & months)	6 (Nov-Apr)	
1-7	Harvest season of the target fruit	(months)	2-8		(no. & months)	3 (Jul-Sep)	
1-8	Current farmgate price of the fruit	(Rp/ piece)	3	4-6	Groundwater depth	(m)	3
1-9	Production input utilization (manure & chemicals)	(kind)	1,500-2,500		(1) wet months	(m)	7
1-10	Inter-cropping plants	(kind)			(2) dry months	(type)	Alluvial
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Cassava, Corn and Bean	5.	Marketing		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	Seed	5-1	No. of local markets within 50 km circle from the site	(no.)	15
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind no.)	PPS (8) / PPL (104)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities
1-14	Available credit services for fruit growing	(kind/ no.)	Kelompok Tani (982) / KUD (20) / Kiosk (12)	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Towns/ Cities
2.	Development Plan for the Target Fruit Growing			5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-1	Target (priority) fruit	(kind)	Duku	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities
2-2	Development land area	(ha)	3,000	5-6	Marketing target (district, province, city and/or export)	(targets)	Surabaya
	(1) Short term (up to 2003)	(ha)	1000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
	(2) Medium term (2004-2008)	(ha)	1000	6.	Post-harvest Handling		
	(3) Long term (2009-2018)	(ha)	1000	6-1	Existing processing facilities of the target fruit	(type)	No
2-3	Target production in short-term action program	(ton)	1000	6-2	Processed products	(kind)	
2-4	Target productivity per hectare	(ton)	4,000		(drying, canning, bottling, processed products, etc.)	(ton / day)	
2-5	Variety recommended	(variety)	4	6-3	Capacity of the processing facility	(kind)	
2-6	Plant(s) recommended to be inter-cropped	(kind)	Palemang		(Enhancement Planning)	(kind)	Cleaning / Sorting / Grading / Packaging
			Secondary crops	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Canned fruit
3.	Socio-economic Condition of the Site			6-5	Expanding processed products	(kind)	Nil
3-1	No. of candidate participant farmers	(no.)	4,347	7.	Infrastructure and Facilities		
3-2	No. of villages concerned	(no.)	13	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-3	Distance to the Provincial capital (Road class I)	(km)	80	8-2	Possible water source for watering	(kind)	Groundwater
3-4	Distance to the District capital (Road class II)	(km)	20				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	1				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Compact gravel				
3-8	Distance to the nearest seaport/ airport	(km)	80				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-3 Profile of the Candidate Project Site for Orchard Development in East Java Province (S/8)

Code : EJ(DR)-1
 Target Fruit : Durian
 District : Jombang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Cassava, Corn	4-1	Topography (configuration of the site)	(type)	Hilly to mountainous
1-2	Average landholding size of the farm-household	(ha)	0.53	4-2	Slope	(%)	15-40
1-3	Average cultivation area of the target fruit tree	(ha)	0.05	4-3	Altitude (or elevation)	(m)	400-700
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Manol and Bidu, Orong	4-4	Annual rainfall	(mm)	1,939
1-5	No. of planned target fruit trees	(no.)	4614	4-5	Climate type (No. of wet and dry months)*	(type)	B2
1-6	Annual average production in last five years	(ton)	1,588	(1) wet months	(no./month)	6 (Nov-Apr)	
1-7	Harvest season of the target fruit	(months)	4	(2) dry months	(no./month)	4 (Jan-Sep)	
1-8	Current farmgate price of the fruit	(Rp/ piece)	1500	4-6	Groundwater depth	(m)	2
1-9	Production input utilization (manure & chemicals)	(kind)	-	(1) wet months	(m)	6	
1-10	Inter-cropping plants	(kind)	Secondary crops	(2) dry months	(type)	Latow	
1-11	Procurement of seedlings (seed, nursery, PRAN, etc.)	(source)	Seed	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (5) PPL (12)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (1), KUD (2)	5-1	No. of local markets within 50 km circle from the site (Present Market Situation)	(no.)	13
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (17)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crop (local, subdistricts, districts, provinces, towns, cities & export)	(cosmanon)	Local and Surabaya
2-1	Target (priority) fruit	(kind)	Durian	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	3150	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities
(1) ... Short term (up to 2003)		(ha)	1,150	5-6	Marketing target (district, province, city and/or export)	(target)	Surabaya
(2) ... Medium term (2004-2008)		(ha)	1000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
(3) ... Long term (2009-2018)		(ha)	1000	Post-harvest Handling			
2-3	Target production in short-term action program	(ton)	9200	6-1	Existing processing facilities of the target fruit	(type)	No
2-4	Target productivity per hectare	(ton)	8	6-2	Processed products	(kind)	-
2-5	Variety recommended	(variety)	Orong and Kani	6-3	Capacity of the processing facility (drying, canning, bottling, processed products, etc.)	(ton/day)	-
2-6	Plant(s) recommended to be inter-cropped	(kind)	Cassava and Corn	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Packaging
3.	Socio-economic Condition of the Site			6-5	Expected processed products	(kind)	Fresh fruit
3-1	No. of candidate participant farmers	(no.)	1560	6-6	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Pipeline system by use and Spring water
3-2	No. of villages concerned	(no.)	8	6-7	Possible water sources for watering	(kind)	Spring
3-3	Distance to the Provincial capital (Road class I)	(km)	100				
3-4	Distance to the District capital (Road class II)	(km)	30				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	11				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II				
3-7	Road condition of the road to Subdistrict capital (material)	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	60				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-3 Profile of the Candidate Project Site for Orchard Development in East Java Province (6/8)

Code : EJ(DR)-2
 Target Fruit : Durian
 District : Trenggalek

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Cassava, Corn and Banana	4-1	Topography (configuration of the site)	(type)	Hilly to mountainous
1-2	Average landholding size of the farm-household	(ha)	0.30	4-2	Slope	(°)	15-40
1-3	Average cultivation area of the target fruit tree	(ha)	0.05	4-3	Altitude (or elevation)	(m)	300-900
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Otong	4-4	Annual rainfall	(mm)	2,589
1-5	No. of planned target fruit trees	(no.)	1437	4-5	Climate type (No. of wet and dry months)*	(type)	A2
1-6	Annual average production in last five years	(ton)	94	(1)	wet months	(no./month)	12 (Jan-Dec)
1-7	Harvest season of the target fruit	(months)	3	(2)	dry months	(no./month)	0
1-8	Current farmgate price of the fruit	(Rp/ piece)	1100	4-6	Groundwater depth	(m)	25
1-9	Production input utilization (manure & chemicals)	(kind)	-	(1)	wet months	(m)	50
1-10	Inter-cropping plant(s)	(kind)	Secondary crops	(2)	dry months	(type)	Latosol, Mediterranean and Lithosol
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (9) / PPL (73)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Jani, KUD, etc.)	(kind/ no.)	Kelompok Tam (547) / KUD (13) / Kiosk (12)	5-1	No. of local markets within 50 km circle from the site	(no.)	9
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (13)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local and Surabaya
2-1	Target (priority) fruit	(kind)	Durian	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2000	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities
(1)	Short term (up to 2003)	(ha)	1000	5-6	Marketing target (district, province, city and/or export)	(targets)	Surabaya
(2)	Medium term (2004-2008)	(ha)	800	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
(3)	Long term (2009-2018)	(ha)	500	6.	Post-harvest Handling		
2-3	Target production in short-term action program	(ton)	8000	(Present Processing Facilities)			
2-4	Target productivity per hectare	(ton)	8	6-1	Existing processing facilities of the target fruit	(type)	No
2-5	Variety recommended	(variety)	Otong and Kam	6-2	Processed products	(kind)	-
2-6	Plant(s) recommended to be inter-cropped	(kind)	Cassava and Corn	6-3	Capacity of the processing facility (drying, canning, bottling, processed products, etc.)	(ton/day)	-
3.	Socio-economic Condition of the Site			6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Packaging
3-1	No. of candidate participant farmers	(no.)	4160	6-5	Expected processed products	(kind)	Fresh fruit
3-2	No. of villages concerned	(no.)	8	7.	Infrastructure and Facilities		
3-3	Distance to the Provincial capital (Road class I)	(km)	200	7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-4	Distance to the District capital (Road class II)	(km)	10	7-2	Possible water source for watering	(kind)	Spring
3-5	Distance to the Subdistrict capital (Road class III)	(km)	10				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Compact gravel				
3-8	Distance to the nearest airport	(km)	10				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-3 Profile of the Candidate Project Site for Orchard Development in East Java Province (7/8)

Code : EJ(MO)-1
 Target Fruit : Mango
 District : Pasuruan

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1. Present Farm Management & Seedling Production							
1-1	Cultivated crops	(kind)	Com. Soybean or Fallow				
1-2	Average landholding size of the farm-household	(ha)	0.46				
1-3	Average cultivation area of the target fruit tree	(ha)	0.2				
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Arumanis 143, Manalagi 69				
1-5	No. of planted target fruit trees	(no.)	25-273				
1-6	Annual average production in last five years	(ton)	25-283				
1-7	Harvest season of the target fruit	(months)	5				
1-8	Current farmgate price of the fruit	(Rp./piece)	5500				
1-9	Production input utilization (manure & chemicals)	(kind)	-				
1-10	Inter-cropping plant(s)	(kind)	Secondary crops				
1-11	Procurement of seedlings (seed, nursery, PKAS, etc.)	(source)	Nursery				
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (8) / PPL (114)				
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tan (1,715) / KUD (29)				
1-14	Available credit services for fruit growing	(kind/no.)	BRI Unit (23)				
2. Development Plan for the Target Fruit Growing							
2-1	Target (priority) fruit	(kind)	Mango				
2-2	Development land area	(ha)	3750				
(1)	Short term (up to 2003)	(ha)	250				
(2)	Medium term (2004-2008)	(ha)	1500				
(3)	Long term (2009-2018)	(ha)	1500				
2-3	Target production in short-term action program	(ton)	7500				
2-4	Target productivity per hectare	(ton)	10				
2-5	Variety recommended	(variety)	Arumanis 143, Manalagi 69				
2-6	Plant(s) recommended to be inter-cropped	(kind)	Soybean, Mungbean, and others bean				
3. Socioeconomic Condition of the Site							
3-1	No. of candidate participant farmers	(no.)	2678				
3-2	No. of villages concerned	(no.)	7				
3-3	Distance to the Provincial capital (Road class I)	(km)	80				
3-4	Distance to the District capital (Road class II)	(km)	15				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	3				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Compact gravel				
3-8	Distance to the nearest seaport/ airport	(km)	15				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				
4. Agroecology and Agro-climate							
4-1	Topography (reconfiguration of the site)	(type)	Plain				
4-2	Slope	(%)	0-25				
4-3	Altitude (or elevation)	(m)	0-25				
4-4	Annual rainfall	(mm)	1,096				
4-5	Climate type (No. of wet and dry months)*	(type)	D				
(1)	wet months	(no.&month)	5 (Dec-Apr)				
(2)	dry months	(no.&month)	7 (May-Nov)				
4-6	Groundwater depth	(m)	15				
(1)	wet months	(m)	25				
(2)	dry months	(m)	25				
4-7	Soil type	(type)	Alluvial and Mediterranean				
5. Marketing							
<i>(Present Market Situation)</i>							
5-1	No. of local markets within 50 km circle from the site	(no.)	10				
5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities/ Exports				
5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Jakarta, Surabaya or Exports				
5-4	Form of marketed products (fresh - processed)	(state)	Fresh and Processed				
<i>(Marketing Prospective)</i>							
5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers Groups - Collectors/ Wholesalers - Towns/ Cities - Exports				
5-6	Marketing target (district, province, city and/or export)	(targets)	Exports				
5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed				
6. Post-harvest Handling							
<i>(Present Processing Facilities)</i>							
6-1	Existing processing facilities of the target fruit	(type)	No				
6-2	Processed products	(kind)	-				
(dry, curing, bottling, processed products, etc.)							
6-3	Capacity of the processing facility	(ton/day)	-				
<i>(Enhancement Planning)</i>							
6-4	Required post-harvest handling activities	(kind)	Cleaning / Sorting / Grading / Packaging				
(cleaning, sorting, grading, processing, packaging, etc.)							
6-5	Expected processed products	(kind)	Dried fruit / Juice				
7. Infrastructure and Facilities							
7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Groundwater development project by World Bank				
7-2	Possible water source for watering	(kind)	Groundwater				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-3 Profile of the Candidate Project Site for Orchard Development in East Java Province (8/8)

Code : EJ(SK)-1
 Target Fruit : Salak
 District : Malang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Sugarcane, Corn and Banana	4-1	Topography (configuration of the site)	(type)	Flat, undulating, hilly to mountainous
1-2	Average landholding size of the farm-household	(ha)	0.47	4-2	Slope	(%)	0-15
1-3	Average cultivation area of the target fruit trees	(ha)	0.15	4-3	Altitude (or elevation)	(m)	100-1,000
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Suwatu	4-4	Annual rainfall	(mm)	1,775
1-5	No. of planted target fruit trees	(no.)	88,909	4-5	Climate type (No. of wet and dry months)*	(type)	B2
1-6	Annual average production in last five years	(ton)	3,486	(1)	wet months	(no. & month)	7 (Oct-Apr)
1-7	Harvest season of the target fruit	(months)	4	(2)	dry months	(no. & month)	4 (Jun-Sep)
1-8	Current farmgate price of the fruit	(Rp./piece)	2,000	4-6	Groundwater depth	(m)	5
1-9	Production input utilization (manure & chemicals)	(kind)	Manure and Compost	(1)	wet months	(m)	8
1-10	Insect-cropping plants	(kind)	Bean	(2)	dry months	(type)	Alluvial, Mediterranean and Regosol
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (9) / PPL (186)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (1418) / KUD (34)	5-1	No. of local markets within 50 km circle from the site	(no.)	15
1-14	Available credit services for fruit growing	(kind/no.)	BRI Unit (29)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local submarkets, districts, provinces, towns, cities & export)	(destination)	Local, Surabaya and Jakarta
2-1	Target (priority) fruit	(kind)	Salak	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	3,700	Marketing Perspective			
(1)	Short term (up to 2003)	(ha)	1,700	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesaler - Towns/ Cities - Exports
(2)	Medium term (2004-2008)	(ha)	1000	5-6	Marketing target (district, provinces, city and/or export)	(targets)	Surabaya and Jakarta
(3)	Long term (2009-2018)	(ha)	1000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
2-3	Target production in short-term action program	(ton)	17000	Post-harvest Handling			
2-4	Target productivity per hectare	(ton)	10	(Present Processing Facilities)			
2-5	Variety recommended	(variety)	Suwatu, Pondoh	6-1	Existing processing facilities of the target fruit	(type)	No
2-6	Plant(s) recommended to be inter-cropped	(kind)	Bean and secondary crops	6-2	Processed products (drying, canning, bottling, processed products, etc.)	(kind)	-
3.	Socio-economic Condition of the Site			6-3	Capacity of the processing facility (Enhancement Planning)	(ton/day)	-
3-1	No. of candidate participant farmers	(no.)	5660	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Grading / Packaging
3-2	No. of villages concerned	(no.)	9	6-5	Exporting processed products	(kind)	Sweets (Dodol / Manisan)
3-3	Distance to the Provincial capital (Road class I)	(km)	80	Infrastructure and Facilities			
3-4	Distance to the District capital (Road class II)	(km)	15	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Watering facilities by pumping-up groundwater
3-5	Distance to the Subdistrict capital (Road class III)	(km)	3	8-2	Possible water source for watering	(kind)	Groundwater
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	20				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (1/15)

Code : SS(AV)-1
 Target Fruit : Avocado
 District : Gowa

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Paddy, Corn, Vegetable	4-1	Topography (configuration of the site)	(type)	Hilly to mountainous
1-2	Average landholding size of the farm-household	(ha)	0.97	4-2	Slope	(%)	20 - 40
1-3	Average cultivation area of the target fruit tree	(ha)	0.1	4-3	Altitude (or elevation)	(m)	1,000 - 1,200
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Mentega	4-4	Annual rainfall	(mm)	2,294
1-5	No. of planted target fruit trees	(no.)	27,107	4-5	Climate type (No. of wet and dry months)*	(type)	1-2
1-6	Annual average production in last five years	(ton)	16,040		(no. & month)	2 (Aug-Sept)	
1-7	Harvest season of the target fruit	(months)	3	4-6	Groundwater depth	(m)	5
1-8	Current farmgate price of the fruit	(Rp./piece)	100 - 500		(1) wet months	(m)	10
1-9	Production input utilization (manure & chemicals)	(kind)	-	4-7	Soil type	(type)	Latosol, Mediterranean, Yellow red, podzolic
1-10	Inter-cropping plant(s)	(kind)	Corn, Mungbean, Second crops				
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	5.	Marketing		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (2) / PPL (88)	5-1	No. of local markets within 50 km circle from the site	(no.)	8
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (776) / KUD (30) / Kiosk (776)	5-2	Marketing channel (farmers - collector/middleman - towns - cities - export)	(flow)	Farmer - Collectors - Towns/Cities
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (9)	5-3	Present destination of the crops (local, submarkets, districts, provinces, towns, cities & export)	(destination)	Local and Ujung Pandang
2.	Development Plan for the Target Fruit Growing			5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-1	Target (priority) fruit	(kind)	Avocado	5-5	Marketing channel (farmers - collector/middleman - towns - cities - export)	(flow)	Farmer - Farmers' Groups - Collectors/Wholesalers - Towns/Cities - Inter-regions
2-2	Development land area	(ha)	1500	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
(1)	Short term (up to 2003)	(ha)	500	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
(2)	Medium term (2004-2008)	(ha)	500	6.	Post-harvest Handling		
(3)	Long term (2009-2018)	(ha)	500	6-1	Existing processing facilities of the target fruit	(type)	No
2-3	Target production in short-term action program	(ton)	3000	6-2	Processed products	(kind)	-
2-4	Target productivity per hectare	(ton)	6	6-3	Capacity of the processing facility	(ton / day)	-
2-5	Variety recommended	(variety)	Mentega	6-4	Required post-harvest handling activities	(kind)	Cleaning / Sorting / Grading / Packaging
2-6	Plant(s) recommended to be inter-cropped	(kind)	Corn, Peanut and Mungbean	6-5	Expected processed products	(kind)	Juice
3.	Socio-economic Condition of the Site			7.	Infrastructure and Facilities		
3-1	No. of candidate participant farmers	(no.)	1530	8-1	Existing irrigation facilities for upland crops/fruits in and around the project site	(kind)	Nil
3-2	No. of villages concerned	(no.)	4	8-2	Possible water source for watering	(kind)	Spring
3-3	Distance to the Provincial capital (Road class I)	(km)	30				
3-4	Distance to the District capital (Road class II)	(km)	25				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	3				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II				
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest airport	(km)	30				
3-9	Electrician	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (2/15)

Code : SS(AV)-2
 Target Fruit : Avocado
 District : Soppeng

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description		
1.	Present Farm Management & Seedling Production								
	1-1	Cultivated crops	(kind)	Cashew nut, Local mango & Secondary crops	4.	Agro-ecology and Agro-climate			
	1-2	Average landholding size of the farm-household	(ha)	1.16		4-1	Topography (configuration of the site)	(type)	Rolling to hilly
	1-3	Average cultivation area of the target fruit tree	(ha)	0.1		4-2	Slope	(%)	0 - 25
	1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Mentega		4-3	Altitude (or elevation)	(m)	60 - 200
	1-5	No. of planted target fruit trees	(no.)	348		4-4	Annual rainfall	(mm)	1.421
	1-6	Annual average production in last five years	(ton)	24		4-5	Climate type (No. of wet and dry months)*	(type)	B1
	1-7	Harvest season of the target fruit	(months)	3		(1)	wet months	(no. & month)	9 (Nov-Jul)
	1-8	Current farmgate price of the fruit	(Rp./piece)	1000		(2)	dry months	(no. & month)	3 (Sept)
	1-9	Production input utilization (manure & chemicals)	(kind)	-		4-6	Groundwater depth	(m)	4
	1-10	Inter-cropping plants	(kind)	Corn, Peanut and Mungbean		(1)	wet months	(m)	5
	1-11	Procurement of seedlings (seed, nursery, PRA, etc.)	(source)	Seed		4-7	Soil type	(type)	Regosol, Mediterranean
	1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (3) / PPL (136)		Marketing			
	1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (864) / KUD (29) / Kiosk (886)		<i>(Present Market Situation)</i>			
1-14	Available credit services for fruit growing	(kind/no.)	BRI Unit (7)	5-1		No. of local markets within 50 km circle from the site	(no.)	8	
2.	Development Plan for the Target Fruit Growing								
	2-1	Target (priority) fruit	(kind)	Avocado	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmer - Collectors - Towns/Cities	
	2-2	Development land area	(ha)	2250	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local	
	(1)	Short term (up to 2003)	(ha)	500	5-4	Form of marketed products (fresh - processed)	(state)	Fresh	
	(2)	Medium term (2004-2008)	(ha)	750	<i>(Marketing Prospective)</i>				
	(3)	Long term (2009-2018)	(ha)	1000	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmer - Farmers' Groups - Collectors/Wholesalers - Towns/Cities - Interregions	
	2-3	Target production in short-term action program	(ton)	3000	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang	
	2-4	Target productivity per hectare	(ton)	6	5-7	Form of future market demand (fresh - processed)	(state)	Fresh	
	2-5	Variety recommended	(variety)	Mentega	Post-harvest Handling				
	2-6	Plant(s) recommended to be inter-cropped	(kind)	Corn, Peanut and Mungbean	<i>(Present Processing Facilities)</i>				
	3-1	No. of candidate participant farmers	(no.)	675	6-1	Existing processing facilities of the target fruit	(type)	No	
	3-2	No. of villages concerned	(no.)	4	6-2	Processed products	(kind)	-	
	3-3	Distance to the Provincial capital (Road class I)	(km)	150	6-3	Capacity of the processing facility (drying, canning, bottling, processed products, etc.)	(ton/day)	-	
	3-4	Distance to the District capital (Road class II)	(km)	30	<i>(Enhancement Planning)</i>				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	2	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging		
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	1	6-5	Expected processed products	(kind)	Juice		
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt / Hornix	Infrastructure and Facilities					
3-8	Distance to the nearest seaport/airport	(km)	150	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	No		
3-9	Electrification	(yes or no)	Yes	8-2	Possible water source for watering	(kind)	Spring		
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring						

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (3/15)

Code : SS(MO)-1
 Target Fruit : Mango
 District : Sidenreng Rappang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1. Present Farm Management & Seedling Production							
1-1	Cultivated crops	(kind)	Banana, Bush	4.	Agroecology and Agro-climate		
1-2	Average landholding size of the farm-household	(ha)	1.25	4-1	Topography (configuration of the site)	(type)	Plain to rolling
1-3	Average cultivation area of the target fruit tree	(ha)	0.4	4-2	Slope	(%)	0 - 15
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Lanahu, Sukku, Arumanis	4-3	Altitude (or elevation)	(m)	0 - 500
1-5	No. of planted target fruit trees	(no.)	51440	4-4	Annual rainfall	(mm)	1,419
1-6	Annual average production in last five years	(ton)	3,604	4-5	Climate type (No. of wet and dry months)*	(type)	C
1-7	Harvest season of the target fruit	(months)	2	(1)	wet months	(no. & month)	6 (Nov-Dec / March-Jun)
1-8	Current farmgate price of the fruit	(Rp/ piece)	500	(2)	dry months	(no. & month)	2 (Aug-Sep)
1-9	Production input utilization (manure & chemicals)	(kind)	-	4-6	Groundwater depth	(m)	10
1-10	Inter-cropping plant(s)	(kind)	Banana	(1)	wet months	(m)	14
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Nursery	(2)	dry months	(type)	Alluvial, Regosol, and Yellow red podzolic
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (3) / PPL (63)	4-7	Soil type		
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (471) / KUD (25) / Ksok (70)	Marketing			
1-14	Available credit services for fruit growing	(kind/ no.)	BR Unit (25)	(Present Market Situation)			
2. Development Plan for the Target Fruit Growing							
2-1	Target (priority) fruit	(kind)	Mango	5-1	No. of local markets within 50 km circle from the site	(no.)	7
2-2	Development land area	(ha)	2500	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns
(1)	Short term (up to 2003)	(ha)	500	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local
(2)	Medium term (2004-2008)	(ha)	1000	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
(3)	Long term (2009-2018)	(ha)	1000	(Marketing Prospective)			
2-3	Target production in short-term action program	(ton)	5000	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Inter-regions
2-4	Target productivity per hectare	(ton)	10	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
2-5	Variety recommended	(variety)	Arumanis	5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed
2-6	Plant(s) recommended to be inter-cropped	(kind)	Secondary Crops	6. Post-harvest Handling			
3. Socio-economic Condition of the Site							
3-1	No. of candidate participant farmers	(no.)	625	6-1	Existing processing facilities of the target fruit	(type)	No
3-2	No. of villages concerned	(no.)	2	6-2	Processed products	(kind)	-
3-3	Distance to the Provincial capital (Road class I)	(km)	120	6-3	Capacity of the processing facility	(ton / day)	-
3-4	Distance to the District capital (Road class II)	(km)	25	(Enlightenment Planning)			
3-5	Distance to the Subdistrict capital (Road class III)	(km)	5	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III	6-5	Expected processed products	(kind)	Dried fruit
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt	7. Infrastructure and Facilities			
3-8	Distance to the nearest airport	(km)	35	N-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nd
3-9	Electrification	(yet or no)	Yes	N-2	Possible water source for watering	(kind)	Groundwater
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring / River				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (4/15)

Code : SS(MO)-2
 Target fruit : Mango
 District : Majene

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Secondary crops, Banana, Mango	4-1	Topography (cont./duration of the site)	(type)	Rolling to hilly
1-2	Average landholding size of the farm-household	(ha)	0.67	4-2	Slope	(%)	10 - 15
1-3	Average cultivation area of the target fruit tree	(ha)	0.1	4-3	Altitude (of elevation)	(m)	40-70
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Arumans and Local	4-4	Annual rainfall	(mm)	1,900 - 2,400
1-5	No. of planted target fruit trees	(no.)	79945	4-5	Climate type (No. of wet and dry months)*	(type)	D & E
1-6	Annual average production in last five years	(ton)	1,324	(1)	wet months	(no.&month)	6 (Nov-Apr)
1-7	Harvest season of the target fruit	(months)	3 (Nov - Dec - Jan)	(2)	dry months	(no.&month)	3 (Jul-Sep)
1-8	Current farmgate price of the fruit	(Rp/ piece)	1800	4-6	Groundwater depth	(m)	1 - 2
1-9	Production input utilization (manure & chemicals)	(kind)	Manure (goat)	(1)	wet months	(m)	3 - 5
1-10	Inter-cropping plant(s)	(kind)	Casava, Soybean, etc.	(2)	dry months	(type)	Litholol and Mediterranean
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Nursery	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (1) / PPL (32)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kolompok Jani, KUD, etc.)	(kind/ no.)	Kolompok Tan (172) / KUD (11) / Kiosk (371)	5-1	No. of local markets within 50 km circle from the site	(no.)	9
1-14	Available credit services for fruit growing	(kind/ no.)	BRI, Umi (2)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local
2-1	Target (priority) fruit	(kind)	Mango	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2500	(Marketing Prospective)			
(1)	Short term (up to 2003)	(ha)	500	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Inter-regions
(2)	Medium term (2004-2008)	(ha)	700	5-6	Marketing target (district, province, city and/or export)	(targets)	Local and Ujung Pandang
(3)	Long term (2009-2018)	(ha)	1000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed
2-3	Target production in short-term action program	(ton)	4000	6.	Post-harvest Handling		
2-4	Target productivity per hectare	(ton)	8	(Present Processing Facilities)			
2-5	Variety recommended	(variety)	Arumans 143	6-1	Existing processing facilities of the target fruit	(type)	No
2-6	Plants recommended to be inter-cropped	(kind)	Casava, Soybean, etc.	6-2	Processed products	(kind)	-
3.	Socio-economic Condition of the Site			(dry, canning, bottling, processed products, etc.)			
3-1	No. of candidate participant farmers	(no.)	500 - 550	6-3	Capacity of the processing facility	(ton/ day)	-
3-2	No. of villages concerned	(no.)	2 (Ohang and Tubo)	(Enhancement Planning)			
3-3	Distance to the Provincial capital (Road class I)	(km)	360	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-4	Distance to the District capital (Road class II)	(km)	60	6-5	Existing processed products	(kind)	Dried fruit
3-5	Distance to the Subdistrict capital (Road class III)	(km)	20	Infrastructure and Facilities			
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II	3-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt	3-2	Postable water source for watering	(kind)	River and Groundwater
3-8	Distance to the nearest seaport/ airport	(km)	Seaport (25 - 40) / Airport (270)				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well / Spring / River				

Note : *Schimidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (5/15)

Code : SS(MO)-3
 Target Fruit : Mango
 District : Bone

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agroecology and Agro-climate		
1-1	Cultivated crops	(kind)	Ceonjot, Catechu nut, Corn, Peanut	4-1	Topography (configuration of the site)	(type)	Plain
1-2	Average landholding size of the farm-household	(ha)	1.17	4-2	Slope	(%)	0-2
1-3	Average cultivation area of the target fruit tree	(ha)	0.5	4-3	Altitude (or elevation)	(m)	0-100
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Arumanis, Manalagi, Gading, Golek, Lanahu, Sukku	4-4	Annual rainfall	(mm)	1,875
1-5	No. of planted target fruit trees	(no.)	369347	4-5	Climate type (No. of wet and dry months)*	(type)	B1
1-6	Annual average production in last five years	(ton)	32,168		(no.&month)	1 (Nov-Aug)	
1-7	Harvest season of the target fruit	(months)	3	4-6	Groundwater depth	(m)	4
1-8	Current farmgate price of the fruit	(Rp./piece)	-	(1)	wet months	(m)	6
1-9	Production input utilization (manure & chemicals)	(kind)	-	(2)	dry months	(m)	6
1-10	Inter-cropping plants	(kind)	Peanut, Corn, Mungbean	4-7	Soil type	(type)	Mediterranean
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Nursery	5.	Marketing		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (51/PPL (200)	(Present Market Situation)			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (280) / KUD (39) / Kwek (247)	5-1	No. of local markets within 50 km circle from the site	(no.)	6
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (22)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local, Ujung Pandang and Kalimantan
2-1	Target (priority) fruit	(kind)	Mango	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2250	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/Cities - Inter-regions
(1)	Short term (up to 2003)	(ha)	500	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
(2)	Medium term (2004-2008)	(ha)	750	5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed
(3)	Long term (2009-2018)	(ha)	1000	6.	Post-harvest Handling		
2-3	Target production in short-term action program	(ton)	7500	(Present Processing Facilities)			
2-4	Target productivity per hectare	(ton)	15	6-1	Existing processing facilities of the target fruit	(type)	No
2-5	Variety recommended	(variety)	Arumanis	6-2	Processed products (drying, canning, bottling, processed products, etc.)	(kind)	-
2-6	Plant(s) recommended to be inter-cropped	(kind)	Peanut, Corn and Mungbean	6-3	Capacity of the processing facility (drying, canning, bottling, processed products, etc.)	(ton / day)	-
3.	Socio-economic Condition of the Site			(Balustrament Planitree)			
3-1	No. of candidate participant farmers	(no.)	666	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-2	No. of villages concerned	(no.)	5	6-5	Exporting processed products	(kind)	Dried fruit
3-3	Distance to the Provincial capital (Road class I)	(km)	180	Infrastructure and Facilities			
3-4	Distance to the District capital (Road class II)	(km)	40	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-5	Distance to the Subdistrict capital (Road class III)	(km)	7	8-2	Possible water source for watering	(kind)	Groundwater
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	I				
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt / Hotmix				
3-8	Distance to the nearest seaport/ airport	(km)	15				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well / River				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (6/15)

Code : SS(MO)-4
 Target Fruit : Mango
 District : Maros

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Needing Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Banana, Papaya and Bush	4-1	Topography (configuration of the site)	(type)	Plum to Undulating
1-2	Average landholding size of the farm-household	(ha)	0.94	4-2	Slope	(%)	0-2
1-3	Average cultivation area of the target fruit tree	(ha)	0.5	4-3	Altitude (or elevation)	(m)	50-150
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Arunjans and Gadung	4-4	Annual rainfall	(mm)	2.9K2
1-5	No. of planted target fruit trees	(no.)	50334	4-5	Climate type (No. of wet and dry months)*	(type)	B2
1-6	Annual average production in last five years	(ton)	63,038		(1) wet months	(no./month)	7 (Nov-May)
1-7	Harvest season of the target fruit	(months)	4		(2) dry months	(no./month)	4 (Jun-Sep)
1-8	Current farmgate price of the fruit	(Rp/ piece)	1600	4-6	Groundwater depth	(m)	10
1-9	Production input utilization (manure & chemicals)	(kind)			(1) wet months	(m)	15
1-10	Inter-cropping plant(s)	(kind)	Paddy, Cassava, Corn and Peanut	4-7	Soil type	(type)	Latosol, Mediterranean, Andosol, Lithosol
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Nursery	5.	Marketing		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (5) / PPL (97)	5-1	No. of local markets within 50 km circle from the site	(no.)	3
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (452) / KUD (15) / Koak (246)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities
1-14	Available credit services for fruit growing	(kind/no.)	BRU Unit (5)	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local
2.	Development Plan for the Target Fruit Growing			5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-1	Target (priority) fruit	(kind)	Mango	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesaler - Towns/ Cities - Inter-regions
2-2	Development land area	(ha)	2550	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
(1)	Short term (up to 2003)	(ha)	500	5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed
(2)	Medium term (2004-2008)	(ha)	750	6.	Post-harvest Handling		
(3)	Long term (2009-2018)	(ha)	1000	6-1	Existing processing facilities of the target fruit	(type)	No
2-3	Target production in short-term action program	(ton)	2500	6-2	Processed products	(kind)	
2-4	Target productivity per hectare	(ton)	5	6-3	Capacity of the processing facility (drying, canning, bottling, processed products, etc.)	(ton/day)	
2-5	Variety recommended	(variety)	Arunjans	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
2-6	Plant(s) recommended to be inter-cropped	(kind)	Upland paddy, Corn and Cassava	6-5	Expected processed products	(kind)	Dried fruit
3.	Socio-economic Condition of the Site			7.	Infrastructure and Facilities		
3-1	No. of candidate participant farmers	(no.)	819	7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-2	No. of villages concerned	(no.)	4	7-2	Possible water source for watering	(kind)	Groundwater
3-3	Distance to the Provincial capital (Road class I)	(km)	40				
3-4	Distance to the District capital (Road class II)	(km)	10				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	2				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	40				
3-9	Electrification (yes or no)	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well / River				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (7/15)

Code : SS(MO)-5

Target Fruit : Mango

District : Wayo

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agriculture and Agro-climate		
1-1	Cultivated crops	(kind)	Cashew nut, Corn and Peanut	4-1	Topography (contour of the site)	(type)	Rolling to hilly
1-2	Average landholding size of the farm-household	(ha)	1.45	4-2	Slope	(%)	8 - 30
1-3	Average cultivation area of the target fruit tree	(ha)	0.5	4-3	Altitude (or elevation)	(m)	25 - 50
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Lanahu, Sukku	4-4	Annual rainfall	(mm)	1,430
1-5	No. of planted target fruit trees	(no.)	75,200	4-5	Climate type (No. of wet and dry months)*	(type)	B2
1-6	Annual average production in last five years	(ton)	9,962	(1)	wet months	(no.&month)	8 (Nov-Dec, Feb-Jul)
1-7	Harvest season of the target fruit	(months)	2	(2)	dry months	(no.&month)	2 (Sep-Oct)
1-8	Current farmgate price of the fruit	(Rp./ piece)	500	4-6	Groundwater depth	(m)	20
1-9	Production input utilization (manure & chemicals)	(kind)	-	(1)	wet months	(m)	30
1-10	Inter-cropping plant(s)	(kind)	Cashew nut and Cocoa	(2)	dry months	(type)	Mediterranean, Grumosiol, Alluvial
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Nursery	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (2) / PPL (53)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (317) / KUD (15) / Kiosk (336)	5-1	No. of local markets within 50 km circle from the site	(no.)	9
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (10)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local
2-1	Target (priority) fruit	(kind)	Mango	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2250	(Marketing Prospective)			
(1)	Short term (up to 2003)	(ha)	500	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities - Inter-regions
(2)	Medium term (2004-2008)	(ha)	750	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
(3)	Long term (2009-2018)	(ha)	1000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed
2-3	Target production in short-term action program	(ton)	5000	Post-harvest Handling			
2-4	Target productivity per hectare	(ton)	10	(Present Processing Facilities)			
2-5	Variety recommended	(variety)	Arunanis	6-1	Existing processing facilities of the target fruit	(type)	No
2-6	Plant(s) recommended to be inter-cropped	(kind)	Peanut and Mungbean	6-2	Processed products	(kind)	-
3.	Socio-economic Condition of the Site			6-3	Capacity of the processing facility	(ton / day)	-
3-1	No. of candidate participant farmers	(no.)	543	(Enhancement Planning)			
3-2	No. of villages concerned	(no.)	3	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-3	Distance to the Provincial capital (Road class I)	(km)	180	6-5	Exporting processed products	(kind)	Dried fruit
3-4	Distance to the District capital (Road class II)	(km)	30	Infrastructure and Facilities			
3-5	Distance to the Subdistrict capital (Road class III)	(km)	5	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III	8-2	Possible water source for watering	(kind)	Groundwater
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	40				
3-9	Electrification	(yes or no)	No				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (8/15)

Code : SS(MN)-1
 Target Fruit : Mangosteen
 District : Tana Toraja

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Fruit, Wood trees and Bush	4-1	Topography (configuration of the site)	(type)	Holling to hilly
1-2	Average landholding size of the farm-household	(ha)	0.6	4-2	Slope	(%)	10 - 15
1-3	Average cultivation area of the target fruit tree	(ha)	0.2	4-3	Altitude (or elevation)	(m)	300 - 800
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local	4-4	Annual rainfall	(mm)	2,452
1-5	No. of planted target fruit trees	(no.)	1500	4-5	Climate type (No. of wet and dry months)*	(type)	A2
1-6	Annual average production in last five years	(ton)	92	(1)	wet months	(no. & month)	9 (Oct-Jun)
1-7	Harvest season of the target fruit	(months)	2	(2)	dry months	(no. & month)	0
1-8	Current farmgate price of the fruit	(Rp/ piece)	3000	4-6	Groundwater depth	(m)	2
1-9	Production input utilization (manure & chemicals)	(kind)	Manure and compost	(1)	wet months	(m)	5
1-10	Inter-cropping plant(s)	(kind)	Corn and Bean	(2)	dry months	(type)	Yellow Red Podzolic
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (2) / PPL (50)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kolompok Tani, KUD, etc.)	(kind/ no.)	Kolompok Tani (442) / KUD (18) / Kiosk (71)	(Present Market Situation)			
1-14	Available credit services for fruit growing	(kind/ no.)	BR Unit (8)	5-1	No. of local markets within 50 km circle from the site	(no.)	17
2.	Development Plan for the Target Fruit Growing			5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	farmers - Collectors - Towns/ Cities
2-1	Target (priority) fruit	(kind)	Mangosteen	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local
2-2	Development land area	(ha)	2500	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
(1)	Short term (up to 2003)	(ha)	500	Marketing Prospective			
(2)	Medium term (2004-2008)	(ha)	1000	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers Groups - Collectors/ Wholesalers - Towns/ Cities - Inter-regions
(3)	Long term (2009-2018)	(ha)	1000	5-6	Marketing target (district, province, city and/or export)	(targets)	Local
2-3	Target production in short-term action program	(ton)	3750	5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed
2-4	Target productivity per hectare	(ton)	8	Post-harvest Handling			
2-5	Variety recommended	(variety)	Local	(Present Processing Facilities)			
2-6	Plant(s) recommended to be inter-cropped	(kind)	Corn and Bean	6-1	Existing processing facilities of the target fruit	(type)	No
3.	Socio-economic Condition of the Site			6-2	Processed products	(kind)	-
3-1	No. of candidate participant farmers	(no.)	1315	(drying, canning, bottling, processed products, etc.)			
3-2	No. of villages concerned	(no.)	2	6-3	Capacity of the processing facility	(ton / day)	-
3-3	Distance to the Provincial capital (Road class I)	(km)	250	Enhancement Planning			
3-4	Distance to the District capital (Road class II)	(km)	30	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-5	Distance to the Subdistrict capital (Road class III)	(km)	5	6-5	Expected processed products	(kind)	Fresh fruit
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III	Infrastructure and Facilities			
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-8	Distance to the nearest seaport/ airport	(km)	15	8-2	Possible water source for watering	(kind)	Groundwater and Spring
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, springs, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (9/15)

Code : SS(MN)-2
 Target Fruit : Mangosteen
 District : Polewali Mamasa

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Fruit, Wood trees and Bush	4-1	Topography (configuration of the site)	(type)	Rolling to hilly
1-2	Average landholding size of the farm-household	(ha)	0.89	4-2	Slope	(%)	10 - 30
1-3	Average cultivation area of the target fruit tree	(ha)	0.1	4-3	Altitude (or elevation)	(m)	400 - 600
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local	4-4	Annual rainfall	(mm)	3,189
1-5	No. of planted target fruit trees	(no.)	3,500	4-5	Climate type (No. of wet and dry months)*	(type)	A1
1-6	Annual average production in last five years	(ton)	3	(1)	wet months	(no./month)	15 (Jan-Dec)
1-7	Harvest season of the target fruit	(months)	3	(2)	dry months	(no./month)	0
1-8	Current farmgate price of the fruit	(Rp/ piece)	2,000 - 2,500	4-6	Groundwater depth	(m)	2
1-9	Production input utilization (manure & chemicals)	(kind)	-	(1)	wet months	(m)	5
1-10	Inter-cropping plants	(kind)	Corn and Bean	(2)	dry months	(type)	Mediterranean
1-11	Procurement of seedlings (seed, nursery, PRAs, etc.)	(source)	Seed	4-7	Soil type		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (1) / PPL (110)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (285) / KUD (29) / KUD (12)	5-1	No. of local markets within 50 km circle from the site	(no.)	4
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (0)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, submarkets, districts, provinces, towns, cities & export)	(destination)	Local and Ujung Pandang
2-1	Target (priority) fruit	(kind)	Mangosteen	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2,500	Marketing Perspectives			
(1)	Short term (up to 2003)	(ha)	500	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities - Inter-regions
(2)	Medium term (2004-2008)	(ha)	1,000	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
(3)	Long term (2009-2018)	(ha)	1,000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
2-3	Target production in short-term action program	(ton)	3750	Post-harvest Handling			
2-4	Target productivity per hectare	(ton)	8	(Present Processing Facilities)			
2-5	Variety recommended	(variety)	Local	6-1	Existing processing facilities of the target fruit	(type)	No
2-6	Plant(s) recommended to be inter-cropped	(kind)	Corn and Bean	6-2	Processed products	(kind)	-
3.	Socio-economic Condition of the Site			6-3	Capacity of the processing facility (crying, canning, bottling, processed products, etc.)	(ton / day)	-
3-1	No. of candidate participant farmers	(no.)	877	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-2	No. of villages concerned	(no.)	3	6-5	Exporting processed products	(kind)	Fresh fruit
3-3	Distance to the Provincial capital (Road class I)	(km)	285	Infrastructure and Facilities			
3-4	Distance to the District capital (Road class II)	(km)	85	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-5	Distance to the Subdistrict capital (Road class III)	(km)	3	8-2	Possible water source for watering	(kind)	Spring
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III				
3-7	Road condition of the road to Subdistrict capital	(material)	Compact gravel				
3-8	Distance to the nearest seaport/ airport	(km)	160				
3-9	Electrification	(yes or no)	No				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well / Spring				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (10/15)

Code : SS(MA)-1
 Target Fruit : Marquisa
 District : Gowa

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Needing Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Vegetable, Banana, Bush	4-1	Topography (configuration of the site)	(type)	Hilly to mountainous
1-2	Average landholding size of the farm-household	(ha)	0.97	4-2	Slope	(%)	20 - 40
1-3	Average cultivation area of the target fruit tree	(ha)	0.2	4-3	Altitude (or elevation)	(m)	1,000 - 1,200
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Malino	4-4	Annual rainfall	(mm)	2,294
1-5	No. of planted target fruit trees	(no.)	1451483	4-5	Climate type (No. of wet and dry months)*	(type)	B2
1-6	Annual average production in last five years	(ton)	15,709	(1)	wet months	(no./month)	8 (Nov-Jun)
1-7	Harvest season of the target fruit	(months)	4	(2)	dry months	(no./month)	2 (Aug-Sep)
1-8	Current farmgate price of the fruit	(Rp./piece)	250 - 500	4-6	Groundwater depth	(m)	18
1-9	Production input utilization (manure & chemicals)	(kind)	-	(1)	wet months	(m)	2
1-10	Inter-cropping plant(s)	(kind)	Vegetable	(2)	dry months	(type)	Latosol and Mediterranean
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	4-7	Soil type		
1-12	No. of PPS and PPLs specialized in horticulture dev.	(no.)	PPS (2) / PPL (88)	Marketing ...			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (776) / KUD (30) / Kiosk (776)	(Present Market Situation)			
1-14	Available credit services for fruit growing	(kind/no.)	BRL Unit (9)	5-1	No. of local markets within 50 km circle from the site	(no.)	8
2.	Development Plan for the Target Fruit Growing			5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Processors
2-1	Target (priority) fruit	(kind)	Marquisa	5-3	Present destination of the crops (local, subdistrict, districts, provinces, towns, cities & export)	(destination)	Local
2-2	Development land area	(ha)	5000	5-4	Form of marketed products (fresh - processed)	(state)	Fresh and Processed
(1)	Short term (up to 2003)	(ha)	1,000	(Marketing Perspective)			
(2)	Medium term (2004-2008)	(ha)	1,000	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/ Cities - Inter-regions
(3)	Long term (2009-2018)	(ha)	3,000	5-6	Marketing target (district, province, city and/or export)	(targets)	Export
2-3	Target production in short-term action program	(ton)	7000	5-7	Form of future market demand (fresh - processed)	(state)	Processed
2-4	Target productivity per hectare	(ton)	7	Post-harvest Handling			
2-5	Variety recommended	(variety)	Malino	(Present Processing Facilities)			
2-6	Plant(s) recommended to be inter-cropped	(kind)	Vegetables	6-1	Existing processing facilities of the target fruit	(type)	Juice / Syrup
3.	Socio-economic Condition of the Site			6-2	Processed products	(kind)	Fruit juice
3-1	No. of candidate participant farmers	(no.)	1380	(drying, canning, bottling, processed products, etc.)			
3-2	No. of villages concerned	(no.)	3	6-3	Capacity of the processing facility	(ton/day)	4 ton Marquisa / hour
3-3	Distance to the Provincial capital (Road class I)	(km)	40	(Infrastructure Planning)			
3-4	Distance to the District capital (Road class II)	(km)	40	6-4	Required post-harvest handling activities	(kind)	Cleaning / Sorting / Processing
3-5	Distance to the Subdistrict capital (Road class III)	(km)	2	(cleaning, sorting, grading, processing, packaging, etc.)			
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	III	6-5	Expected processed products	(kind)	Drink product
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt	Infrastructure and Facilities			
3-8	Distance to the nearest seaport/ airport	(km)	35	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Watering by use and spring water
3-9	Electrification	(yes or no)	Yes	8-2	Possible water source for watering	(kind)	Spring
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schimdt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (11/15)

Code : SS(MA)-2
 Target Fruit : Marquisa
 District : Tana Toraja

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Grass land, Trees	4-1	Topography (configuration of the site)	(type)	Hilly to mountainous
1-2	Average landholding size of the farm-household	(ha)	0.6	4-2	Slope	(%)	15 - 35
1-3	Average cultivation area of the target fruit tree	(ha)	0.2	4-3	Altitude (or elevation)	(m)	800 - 1,500
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Malino	4-4	Annual rainfall	(mm)	2,182
1-5	No. of planned target fruit trees	(no.)	184103	4-5	Climate type (No. of wet and dry months)*	(type)	A2
1-6	Annual average production in last five years	(ton)	8,113		(no. & month)	9 (Oct-Jun)	
1-7	Harvest season of the target fruit	(months)	6		(no. & month)	1 (Sep)	
1-8	Current farmgate price of the fruit	(Rp./piece)	500	4-6	Groundwater depth	(m)	18
1-9	Production input utilization (manure & chemicals)	(kind)	-		(1) wet months	(m)	20
1-10	Inter-cropping plant(s)	(kind)	Vegetable	4-7	Soil type	(type)	Yellow red podzolic
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	5.	Marketing		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (2) / PPL (31)	5-1	No. of local markets within 50 km circle from the site	(no.)	7
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (442) / KUD (18) / Kiosk (11)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Processors
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (4)	5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local
2.	Development Plan for the Target Fruit Growing			5-4	Form of marketed products (fresh - processed)	(state)	Fresh and Processed
2-1	Target (priority) fruit	(kind)	Marquisa	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Towns/Cities - Inter-regions
2-2	Development land area	(ha)	9000	5-6	Marketing target (district, province, city and/or export)	(targets)	Export
	(1) Short term (up to 2003)	(ha)	3,000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh and Processed
	(2) Medium term (2004-2008)	(ha)	3000	6.	Post-harvest Handling		
	(3) Long term (2009-2014)	(ha)	3000		(Present Processing Facilities)		
2-3	Target production in short-term action program	(ton)	14000	6-1	Existing processing facilities of the target fruit	(type)	Juice / Syrup
2-4	Target productivity per hectare	(ton)	6	6-2	Processed products	(kind)	Fruit juice
2-5	Variety recommended	(variety)	Malino	6-3	Capacity of the processing facility (drying, eaming, bottling, processed products, etc.)	(ton / day)	2 ton Marquisa per day
2-6	Plant(s) recommended to be inter-cropped	(kind)	Vegetables	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Processing
3.	Socio-economic Condition of the Site			6-5	Existing processed products	(kind)	Dmak product
3-1	No. of candidate participant farmers	(no.)	7890	7.	Infrastructure and Facilities		
3-2	No. of villages concerned	(no.)	3	7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-3	Distance to the Provincial capital (Road class I)	(km)	245	7-2	Possible water source for watering	(kind)	Groundwater (too deep)
3-4	Distance to the District capital (Road class II)	(km)	45				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	5				
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II				
3-7	Road condition of the road to Subdistrict capital	(material)	Compact gravel				
3-8	Distance to the nearest export airport	(km)	20				
3-9	Electrication	(yes or no)	No				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Spring				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (12/15)

Code : SS(RB)-1
 Target Fruit : Rambutan
 District : Mamaju

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description	
1.	Prevent Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate			
	1-1	Cultivated crops	(kind)		4-1	Topography (configuration of the site)	(type)	Flat to rolling
	1-2	Average landholding size of the farm-household	(ha)		4-2	Slope	(%)	10 - 20
	1-3	Average cultivation area of the target fruit tree	(ha)		4-3	Altitude (or elevation)	(m)	5 - 500
	1-4	Prevailing cultivated varieties of the target fruit trees	(variety)		4-4	Annual rainfall	(mm)	2,381
	1-5	No. of planned target fruit trees	(no.)		4-5	Climate type (No. of wet and dry months)*	(type)	B1
	1-6	Annual average production in last five years	(ton)		(1)	wet months	(no./month)	10 (Oct-Jul)
	1-7	Harvest season of the target fruit	(months)		(2)	dry months	(no./month)	1 (Aug)
	1-8	Current farmgate price of the fruit	(Rp/ piece)		4-6	Groundwater depth	(m)	1
	1-9	Production input utilization (manure & chemicals)	(kind)		(1)	wet months	(m)	4
	1-10	Inter-cropping plants	(kind)		(2)	dry months	(type)	Alluvial, Podzolic and Grumosol
	1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)		4-7	Soil type		
	1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)		Marketing			
	1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)		5-1	No. of local markets within 50 km circle from the site	(no.)	8
1-14	Available credit services for fruit growing	(kind/no.)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities		
2.	Development Plan for the Target Fruit Growing			5.	Present destination of the crops (local, submarkets, districts, provinces, towns, cities & export)			
	2-1	Target (priority) fruit	(kind)		5-3	Form of marketed products (fresh - processed)	(state)	Fresh
	2-2	Development land area	(ha)		Marketing Prospective			
	(1)	Short term (up to 2003)	(ha)		5-4	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers Groups - Collectors/ Wholesalers - Towns/ Cities - Inter-regions
	(2)	Medium term (2004-2008)	(ha)		5-5	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
	(3)	Long term (2009-2018)	(ha)		5-7	Form of future market demand (fresh - processed)	(state)	Fresh
	2-3	Target production in short-term action program	(ton)		Post-harvest Handling			
	2-4	Target productivity per hectare	(ton)		6-1	Existing processing facilities of the target fruit	(type)	No
	2-5	Variety recommended	(variety)		6-2	Processed products	(kind)	-
	2-6	Plant(s) recommended to be inter-cropped	(kind)		6-3	Capacity of the processing facility	(ton/day)	-
3.	Socio-economic Condition of the Site			6.	Enhancement Planning			
	3-1	No. of candidate participant farmers	(no.)		6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
	3-2	No. of villages concerned	(no.)		6-5	Exporting processed products	(kind)	Fresh fruit for export
	3-3	Distance to the Provincial capital (Road class I)	(km)		Infrastructure and Facilities			
	3-4	Distance to the District capital (Road class II)	(km)		8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
	3-5	Distance to the Subdistrict capital (Road class III)	(km)		8-2	Possible water source for watering	(kind)	Groundwater
	3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)					
	3-7	Road condition of the road to Subdistrict capital	(material)					
	3-8	Distance to the nearest seaport/ airport	(km)					
	3-9	Electrification	(yes or no)					
3-10	Source of drinking water (well, spring, river, etc.)	(kind)						

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (13/15)

Code : SS(RB)-2
 Target Fruit : Rambutan
 District : Enrekang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Cacao, Clove, Wood / Bush	4-1	Topography (configuration of the site)	(type)	Undulating
1-2	Average landholding size of the farm-household	(ha)	1.01	4-2	Slope	(%)	10-15
1-3	Average cultivation area of the target fruit tree	(ha)	0.1	4-3	Altitude (or elevation)	(m)	155
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Binjal	4-4	Annual rainfall	(mm)	2,322
1-5	No. of planted target fruit trees	(no.)	5751	4-5	Climate type (No. of wet and dry months)*	(type)	A1
1-6	Annual average production in last five years	(ton)	155	(1)	wet months	(no. & month)	12 (Jan-Dec)
1-7	Harvest season of the target fruit	(months)	4	(2)	dry months	(no. & month)	0
1-8	Current farmgate price of the fruit	(Rp./ piece)	1,000-2,000	4-6	Groundwater depth	(m)	3
1-9	Production input-utilization (manure & chemicals)	(kind)	*	(1)	wet months	(m)	3
1-10	Production input-utilization (manure & chemicals)	(kind)	*	(2)	dry months	(m)	6
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(kind)	Corn and Soybean	4-7	Soil type	(type)	Podzolic and Mediterranean
1-12	No. of PPS and PPLs specialized in horticulture dev.	(no.)	PPS (2) / PPL (29)	Marketing			
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (285) / KUD (33) / Kiosk (476)	5-1	No. of local markets within 50 km circle from the site	(no.)	4
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (3)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistrict, districts, provinces, towns, cities & export)	(destination)	Local
2-1	Target (priority) fruit	(kind)	Rambutan	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2500	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Cities - Exports
(1)	Short term (up to 2003)	(ha)	500	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
(2)	Medium term (2004-2008)	(ha)	1000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
(3)	Long term (2009-2018)	(ha)	4000	Post-Harvest Handling			
2-3	Target production in short-term action program	(ton)	4000	6-1	Existing processing facilities of the target fruit	(type)	No
2-4	Target productivity per hectare	(ton)	8	6-2	Processed products	(kind)	*
2-5	Variety recommended	(variety)	Binjal	6-3	Capacity of the processing facility (drying, canning, bottling, processed products, etc.)	(ton / day)	*
2-6	Plant(s) recommended to be inter-cropped	(kind)	Soybean and Corn	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3.	Socio-economic Condition of the Site			6-5	Existing processing facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-1	No. of candidate participant farmers	(no.)	781	6-6	Possible water source for watering	(kind)	Spring and River
3-2	No. of villages concerned	(no.)	2				
3-3	Distance to the Provincial Capital (Road class I)	(km)	250				
3-4	Distance to the District Capital (Road class II)	(km)	40				
3-5	Distance to the Subdistrict Capital (Road class III)	(km)	5				
3-6	Road class of the road to Subdistrict Capital (I, II & III)	(class)	II				
3-7	Condition of the road to Subdistrict Capital	(material)	Asphalt				
3-8	Distance to the nearest seaport/ airport	(km)	85				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				

Note : *Schmidt and Ferguson Method
 Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (14/15)

Code : SS(RB)-3
 Target Fruit : Rambutan
 District : Pinrang

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1.	Present Farm Management & Seedling Production			4.	Agro-ecology and Agro-climate		
1-1	Cultivated crops	(kind)	Bush and Fallow	4-1	Topography (configuration of the site)	(type)	Undulating to rolling
1-2	Average landholding size of the farm-household	(ha)	1.42	4-2	Slope	(%)	5-15
1-3	Average cultivation area of the target fruit tree	(ha)	0.01	4-3	Altitude (or elevation)	(m)	100-150
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Binjai, Lebak Bulus	4-4	Annual rainfall	(mm)	2,292
1-5	No. of planted target fruit trees	(no.)	15230	4-5	Climate type (No. of wet and dry months)*	(type)	B1
1-6	Annual average production in last five years	(ton)	1		(no. & month)		10 (Oct-Jul)
1-7	Harvest season of the target fruit	(months)	2	4-6	Groundwater depth	(m)	10
1-8	Current farmgate price of the fruit	(Rp./piece)	-		(1) wet months	(m)	20
1-9	Production input utilization (manure & chemicals)	(kind)	-	4-7	Soil type	(type)	Podzolic
1-10	Inter-cropping plants	(kind)	Corn		(2) dry months		
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	5.	Marketing		
1-12	No. of PPSs and PPLs specialized in horticulture dev.	(no.)	PPS (11) / PPL (117)		(Present Market Situation)		
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/ no.)	Kelompok Tani (593) / KUD (9) / Kosok (183)	5-1	No. of local markets within 50 km circle from the site	(no.)	11
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (13)	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities
2.	Development Plan for the Target Fruit Growing			5-3	Present destination of the crops (local, subdistricts, districts, provinces, towns, cities & export)	(destination)	Local, Ujung Pandang
2-1	Target (priority) fruit	(kind)	Rambutan	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
2-2	Development land area	(ha)	2500	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/ Wholesalers - Cities - Exports
(1)	Short term (up to 2003)	(ha)	500	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
(2)	Medium term (2004-2008)	(ha)	1000	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
(3)	Long term (2009-2018)	(ha)	1000				
2-3	Target production in short-term action program	(ton)	4000	6.	Post-harvest Handling		
2-4	Target productivity per hectare	(ton)	8		(Present Processing Facilities)		
2-5	Variety recommended	(variety)	Binjai, Lebak Bulus	6-1	Existing processing facilities of the target fruit	(type)	No
2-6	Plant(s) recommended to be inter-cropped	(kind)	Banana and secondary crops	6-2	Processed products	(kind)	-
3.	Socio-economic Condition of the Site			6-3	Capacity of the processing facility	(ton / day)	-
3-1	No. of candidate participant farmers	(no.)	543				
3-2	No. of villages concerned	(no.)	1	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Clean / Sorting / Grading / Packaging
3-3	Distance to the Provincial capital (Road class I)	(km)	200	6-5	Expected processed products	(kind)	Fresh fruit for export
3-4	Distance to the District capital (Road class II)	(km)	40				
3-5	Distance to the Subdistrict capital (Road class III)	(km)	5	7.	Infrastructure and Facilities		
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II	7-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-7	Road condition of the road to Subdistrict capital	(material)	Asphalt	7-2	Possible water source for watering	(kind)	Groundwater
3-8	Distance to the nearest airport/ airport	(km)	85				
3-9	Electrification	(yes or no)	Yes				
3-10	Source of drinking water (well, spring, river, etc.)	(kind)	Well				

Note : *Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

Table K-4 Profile of the Candidate Project Site for Orchard Development in South Sulawesi Province (15/15)

Code : SS(RB)-4
 Target Fruit : Rambutan
 District : Barru

No.	Item	(Unit)	Description	No.	Item	(Unit)	Description
1. Present Farm Management & Seedling Production							
1-1	Cultivated crops	(kind)	Fallow land	4.	Agro-ecology and Agro-climate		
1-2	Average landholding size of the farm-household	(ha)	0.89	4-1	Topography (configuration of the site)	(type)	Flat, Undulating, Rolling to hilly
1-3	Average cultivation area of the target fruit tree	(ha)	0.01	4-2	Slope	(%)	5-20
1-4	Prevailing cultivated varieties of the target fruit trees	(variety)	Local, Binjai, Lebak Bulus	4-3	Altitude (or elevation)	(m)	100-600
1-5	No. of planted target fruit trees	(no.)	-	4-4	Annual rainfall	(mm)	2,902
1-6	Annual average production in last five years	(ton)	-	4-5	Climate type (No. of wet and dry months)*	(type)	B2
1-7	Harvest season of the target fruit	(months)	2		(no.&month)	7 (Nov-May)	
1-8	Current farmgate price of the target fruit	(Rp./piece)	-		(no.&month)	3 (Jan-Sep)	
1-9	Production input utilization (manure & chemicals)	(kind)	-	4-6	Groundwater depth	(m)	50
1-10	Inter-cropping plants	(kind)	Corn	(1)	wet months	(m)	60
1-11	Procurement of seedlings (seed, nursery, PRAS, etc.)	(source)	Seed	(2)	dry months	(type)	Regosol, Lithosols and Mediterranean
1-12	No. of PPNs and PPLs specialized in horticulture dev.	(no.)	PPS (2) / PPL (58)	4-7	Soil type		
1-13	Existence of nucleus institution for grouping fruit growing farmers (Kelompok Tani, KUD, etc.)	(kind/no.)	Kelompok Tani (225) / KUD (17) / Kosok (225)	5. Marketing			
1-14	Available credit services for fruit growing	(kind/ no.)	BRI Unit (5)	<i>(Present Market Situation)</i>			
2. Development Plan for the Target Fruit Growing							
2-1	Target (probab) fruit	(kind)	Rambutan	5-1	No. of local markets within 50 km circle from the site	(no.)	8
2-2	Development land area	(ha)	700	5-2	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Collectors - Towns/ Cities
(1)	Short term (up to 2003)	(ha)	500	5-3	Present destination of the crops (local, sub-urban, districts, provinces, towns, cities & export)	(destination)	Local
(2)	Medium term (2004-2008)	(ha)	1000	5-4	Form of marketed products (fresh - processed)	(state)	Fresh
(3)	Long term (2009-2018)	(ha)	5600	<i>(Marketing Prospective)</i>			
2-3	Target production in short-term action program	(ton)	8	5-5	Marketing channel (farmers - collector/ middleman - towns - cities - export)	(flow)	Farmers - Farmers' Groups - Collectors/Wholesalers - Towns/ Cities - Export
2-4	Target productivity per hectare	(ton)	8	5-6	Marketing target (district, province, city and/or export)	(targets)	Ujung Pandang
2-5	Variety recommended	(variety)	Binjai and Lebak Bulus	5-7	Form of future market demand (fresh - processed)	(state)	Fresh
2-6	Plant(s) recommended to be inter-cropped	(kind)	Banana and secondary crops	6. Post-harvest Handling			
3. Socio-economic Condition of the Site							
3-1	No. of candidate participant farmers	(no.)	1228	6-1	Existing processing facilities of the target fruit	(type)	No
3-2	No. of villages concerned	(no.)	2	6-2	Processed products	(kind)	-
3-3	Distance to the Provincial capital (Road class I)	(km)	180	6-3	Capacity of the processing facility	(ton/day)	-
3-4	Distance to the District capital (Road class II)	(km)	30	<i>(Enhancement Planning)</i>			
3-5	Distance to the Subdistrict capital (Road class III)	(km)	4	6-4	Required post-harvest handling activities (cleaning, sorting, grading, processing, packaging, etc.)	(kind)	Cleaning / Sorting / Grading / Packaging
3-6	Road class of the road to Subdistrict capital (I, II & III)	(class)	II	6-5	Expected processed products	(kind)	Fresh fruit for export
3-7	Road condition of the road to Subdistrict capital (material)	(material)	Asphalt	7. Infrastructure and Facilities			
3-8	Distance to the nearest seaport airport	(km)	10	8-1	Existing irrigation facilities for upland crops/ fruits in and around the project site	(kind)	Nil
3-9	Electrification	(yes or no)	Yes	8-2	Possible water source for watering	(kind)	Groundwater
3-10	Source of drinking water (well, springs, river, etc.)	(kind)	Well				

Note : Schmidt and Ferguson Method

Source : Provincial Agricultural Services Office and JICA Study Team

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