
APPENDICES

Appendix I

Fieldwork in Batu Pahat District

Fieldwork among the Malay villagers and Chinese processors in Batu Pahat District, southwest Malaya, was carried out over a cumulative two-month period during February-April 1979. I was assisted by Ah Thor of Parit Bilal, whose energy and contacts facilitated rapport with the processing sector, and by Abu of Parit Sauh, whose respectful demeanour elicited friendly cooperation from farmers who took time off from their daily toil to respond to many of my inquiries. Their guidance alleviated my rambling labours in an unfamiliar environment in which, as an integral element of my study, it was necessary to venture to the parit-sago areas where at times only soggy overgrown footpaths indicated habitation further in. That oilpalm cultivation has only recently been attempted indicates the strong traditional socioeconomic system of the Malays here.

This survey originally was to have covered, besides the processors, 50 Malay and 50 Chinese farmers in order to permit a comparative analysis of their attitudes and form of participation in sago planting, and thereby determine potential or likely trends of development. The pilot questionnaires administered to five Chinese farmer-processors, as was feared, solicited what turned out to be unreliable, sometimes patently erroneous information concerning their farming activities, so that the attempt was abandoned, e.g. processors refused to admit they had

sago plantings or if persuaded, grossly understated their ownership, and not a single peasant Chinese farmer could be approached who participated willingly in the survey. This deviousness or lack of cooperation, while not unexpected, was more severe than anticipated; the deficiency, confirmed by inquiries among their Malay neighbours, led me to abandon the attempt.

The Malay sago farmers successfully sought for interview numbered 52, of whom about 90% responded adequately to the substantive inquiries made for the survey; because of their age, or progressive reluctance in the face of inquiries, or relative lack of knowledge, or inopportune moment in interviewing them, about a dozen were not asked peripheral queries intended to highlight certain aspects of their participation in the industry. Unfortunately some Malay farmers did not have a head for statistics or rationalised perceptions on their farming lore, so it was impossible to determine such aspects as proportions of various types of farm incomes, frequency of harvesting arrangements, distance from the factories they supplied palms to, net profit from sago sales, etc.

This research work was facilitated considerably by my study of the oilpalm and tapioca industries earlier for my master and doctoral theses, respectively.

Specifics of the sago survey

- a) Name of farmer
Ancestral background
Occupations
Proprietorship of sago holdings
- b) Sago as sole or mixed crop
Other crops grown
Location of sago plantings
Age of oldest sago planting
Previous crops on sago planting
Maintenance of sago planting
Planting assistance received
Condition of sago planting: soil type, water access, pest problem
Productivity of sago holding
- c) Increase or decrease in sago area since 1974
Reason for previously planting sago
If sago was or will be displaced, alternative crops favoured
If sago still favoured in spite of poor market, reason for persistence

my fieldwork studies.

Prices quoted herein, except where otherwise stated, were given by some factory-owners or their assistants. Contradictory answers were obtained concerning the more extreme values: the differences may be partly attributed to subjective influences in seller-buyer relationships, distance of log suppliers, mode of transport, etc. but the estimated ranges quoted should reflect the trend adequately.

Except where otherwise indicated, other statistics are culled from interviews, although I am inclined to believe some were understated, e.g. factory capacity, labour force employed, capital investment and raw material inputs and production. These were slightly adjusted where personal observations and simple mathematics dictated them. But in essence the original information was retained to facilitate comparability at their level. Reliable labour statistics are lacking and the local branch of the Department of Labour did not have a list of sago factories to match mine, even when taking into consideration that a quarter of the enterprises probably relied exclusively on family labour and were not bound to report to the Department in compliance with labour laws.

Except for Johore, Malacca, Penang & Province Wellesley and Trengganu, new spelling of place names in the Federation of Malaya which have arisen was not always adopted; the various government departments were inconsistent too. That in publications of the Ministry of Agriculture is adhered to here because of use of their data for this study.

APPENDIX II
**Gross Exports and Prices of Sago and Tapioca Products
 from Malaya-Singapore, 1925-1939**

Product	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
<u>Sago</u>															
	\$/ton Singapore														
flour	108.70	106.06	103.55	87.75	77.22	69.65	48.39	45.50	39.43	38.41	47.46	51.86	64.82	49.99	69.45
pearl	145.73	146.34	138.36	148.79	143.96	126.67	88.14	77.10	76.76	73.76	74.61	75.34	90.59	72.37	96.35
Sago Products*															
ton	49,018	39,785	42,022	44,195	46,763	55,033	49,299	69,426	66,185	57,232	69,607	74,377	74,349	49,710	70,981
\$000	5,328	4,220	4,351	3,991	3,742	3,943	2,483	3,247	2,707	2,390	3,432	3,937	4,917	2,578	5,032
Tapioca Products															
	\$/ton Singapore														
ton	37,003	36,707	35,140	28,228	32,403	36,676	33,292	32,105	31,920	26,825	24,256	23,561	24,212	23,897	23,401
\$000	4,819	4,376	4,244	3,835	3,853	3,459	2,529	2,157	2,448	2,407	2,157	1,939	1,984	1,609	1,749
Tapioca															
	\$/ton Singapore														
flake	125.20	106.62	116.77	148.74	118.88	92.76	71.92	63.45	79.61	81.94	78.74	90.30	96.86	81.91	102.17
pearl	133.29	123.81	123.79	133.96	134.94	121.18	87.76	77.13	92.07	101.77	102.32	102.96	101.44	83.12	112.31
flour	125.67	118.46	113.26	109.79	118.65	111.78	85.00	80.97	81.65	78.78	93.10	88.68	84.74	72.00	98.94

NOTE: "Malaya-Singapore" denotes the status of Singapore as a port of Malaya in these years, not direction of trade from Malaya to Singapore exclusively.

* Sago products comprised flour in 1925-27, 1933-35, flour and pearl in 1936-37, all products including refuse in 1938-39, the data presented here would therefore be incomplete. However, the table should indicate the magnitude of both sources of starch.

SOURCE Malayan Statistics 1929, Malayan Information Agency, London; The Foreign Trade of Malaya 1929-39; Gov. Print. Off., S.S. & F.M.S.

APPENDIX III
Sago Area in Malaya, 1951-1962

State (acre)	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Johor	1,678	1,610	1,663	1,699	1,765	1,857	1,913	1,980	2,000	2,069	2,028	2,450
Kedah	1,053	1,026	1,093	1,091	1,189	707	671	439	293	290	303	215
Kelantan	836	830	830	825	815	779	777	738	714	731	732	736
Malaka	587	579	647	738	694	747	710	743	835	855	885	640
Negeri Sembilan	381	371	375	380	391	393	400	402	393	393	393	393
Pahang	94	82	58	58	59	65	63	63	33	31	32	32
P. Pinang & S. Peral	7	7	7	7	7	10	16	21	13	5	10	10
Perak	1,218	1,280	1,417	1,425	1,452	1,456	1,456	1,518	1,619	1,608	1,533	1,539
Perlis	147	147	147	147	147	151	151	150	139	138	138	137
Selangor	226	190	346	341	318	383	369	335	334	353	286	289
Terengganu	240	242	243	243	243	273	292	152	160	158	164	177

SOURCE: Pee (1967).

APPENDIX IVa
Types of Sago Cultivation in Malaysia Barat, 1969-1979

Sole (acre)*	1969	1970	1971	1972	1973	1974	1975	1976*	1977*	1978*	1979*
Johor	3,834	3,834	4,131	4,354	4,354	4,282	4,350	1,855	1,879	1,403	1,358
Kedah	44	42	21	21	21	21	20	6	6	5	3
Kelantan	520	415	442	441	503	240	458	153	155	128	129
Melaka	450	450	450	250	250	250	-	-	-	-	-
Negeri Sembilan	122	122	175	10	150	213	188	69	63	62	63
Pahang	-	-	-	-	30	35	35	14	14	-	-
Perak	105	105	135	130	131	121	133	120	63	64	74
P. Pinang & S. Perai	-	-	-	-	-	-	-	-	-	-	-
Perlis	-	-	-	-	-	-	-	-	-	-	-
Selangor	105	90	85	50	50	50	40	-	-	-	32
Terengganu	59	20	20	20	-	-	-	38	34	30	8
Malaysia Barat	5,239	5,078	5,459	5,276	5,489	5,212	5,224	2,255	2,214	1,692	1,667

APPENDIX IVb
Types of Sago Cultivation in Malaysia Barat, 1969-1979
- continued -

Main (acre)*	1969	1970	1971	1972	1973	1974	1975	1976*	1977*	1978*	1979*
Johor	64	64	-	2	-	-	533	-	6	-	-
Kedah	20	10	10	10	10	10	10	4	3	-	-
Kelantan	67	52	62	61	66	29	62	29	32	35	28
Melaka	-	-	-	-	-	-	-	-	-	-	-
Negeri Sembilan	-	-	-	-	-	-	-	2	-	4	-
Pahang	-	-	-	2	2	2	2	-	-	-	-
P. Pinang & S. Perai	-	-	-	-	-	-	-	-	-	-	-
Perak	84	84	10	7	1	5	5	2	16	17	16
Perlis	-	-	-	-	-	-	-	-	-	20	-
Selangor	15	-	-	-	-	-	-	24	-	-	-
Terengganu	55	45	-	-	-	-	-	125	2	8	-
Malaysia Barat	305	255	82	82	85	46	612	186	59	84	44

APPENDIX IVC
Types of Sago Cultivation in Malaysia Barat, 1969-1979
 - continued -

Mixed (acre)*	1969	1970	1971	1972	1973	1974	1975	1976*	1977*	1978*	1979*
Johor	681	545	635	634	624	616	615	430	411	298	171
Kedah	133	131	105	104	109	114	119	45	37	35	35
Kelantan	153	165	163	164	163	169	157	64	55	38	18
Melaka	245	245	245	240	115	540	755	-	395	71	141
Negeri Sembilan	213	216	230	312	63	-	216	98	100	115	105
Pahang	24	44	31	34	65	41	46	18	16	16	4
P. Pinang & S. Peral	17	15	8	7	10	10	7	3	2	2	2
Perak	1,034	1,019	825	798	810	803	573	185	356	342	255
Perlis	-	-	-	-	-	-	-	-	-	-	-
Selangor	38	40	190	240	244	140	80	17	16	12	8
Terengganu	42	73	82	85	90	140	237	40	22	22	15
Malaysia Barat	2,580	2,493	2,514	2,618	2,293	2,573	2,805	900	1,410	951	754

NOTE: * 1976-79 in hectare.

SOURCE. Miscellaneous Crop Acreages and Areas of Miscellaneous Crops (various years).

APPENDIX V
Major Sago Areas in Malaysia Barat, 1966, 1974 and 1979

STATE/District (acre)	Sole			Mixed		
	1966	1974	1979	1966	1974	1979
MALAYSIA BARAT			4,119			1,863
JOHOR	2,715	4,282	3,356	81	616	423
Batu Pahat	2,022	4,255	3,296	-	-	341
Keluang	87	7	-	-	-	-
Muar	514	-	7	-	514	2
Pontian	85	20	52	39	-	32
Segamat	-	-	-	-	80	47
KEDAH	17	21	7	104	114	86
KELANTAN	551	240	319	149	169	44
Kota Bharu	500	186	279	-	2	2
Pasir Mas	-	-	32	58	55	25
Pasir Puteh	-	-	-	44	49	5
MELAKA	650	250	-	205	540	348
Alor Gajah	450	250	-	-	300	309
Jasin	-	-	-	165	125	40
Melaka Tengah	200	-	-	40	115	-
NEGERI SEMBILAN	200	213	156	125	-	259
Jelebu	50	35	-	-	-	-
Kuala Pilah	-	120	121	90	-	-
Rembau	130	30	30	-	-	200
PAHANG	-	35	-	31	41	10
P. PINANG & S. PERAI	-	-	-	21	10	5
PERAK	94	121	182	629	803	630
Batang Padang	4	8	49	30	70	-
Kinta	30	15	5	50	35	25
Krian	-	-	-	20	55	247
Larut & Matang	60	60	32	212	100	252
Perak Tengah	-	28	69	-	220	-
Selama	-	-	27	117	80	96
Perak Hilir	-	-	-	200	241	-
PERLIS	-	-	-	-	-	-

APPENDIX V
Major Sago Areas in Malaysia Barat, 1966, 1974 and 1979
 - continued -

STATE/District (acre)	Sole			Mixed		
	1966	1974	1979	1966	1974	1979
SELANGOR	65	50	79	118	140	20
Sepang*	-	-	79	-	-	-
Ulu Langat	55	50	-	-	20	-
Ulu Selangor	-	-	-	50	50	-
TERENGGANU	116	-	20	22	140	37
Besut	60	-	-	-	30	10
Kuala Terengganu	6	-	20	-	50	27
Ulu Terengganu	35	-	-	2	50	-

NOTES: Only Districts with over 50 ac sole or mixed crop in any of the years are included; "main" crop acreages were recorded in few Districts in any of the years; v. Appendix IVb.

* Sepang was part of Kuala Langat until 1975, sago appeared in 1976.

SOURCE: Miscellaneous Crop Acreages, 1966, 1974, Area of Miscellaneous Crops 1979.

APPENDIX VI
Planted Sago Acreege under RISDA in Batu Pahat District, 1956-1978

Year	Bagan	Che'ah Bahru	Linau Lubok	Machap	Minyak Beku	Pesera	Gading	Seri Medan	Seri Kanan	Spg. Kiri	Tg. Semberong	Ulu Benut
1956	-	-	19	-	1 1/2	4 1/4	13 1/4	-	24	26	-	-
1957	-	-	5 1/4	-	4 1/2	3 1/4	1	11 1/2	4 1/2	11 1/2	-	-
1958	-	1 1/4	26	-	3 3/4	2	-	30	7	32	4	-
1959	-	-	4 1/4	-	1 1/4	-	-	78	53/4	243/4	4 1/4	-
1960	-	-	12 1/2	-	93/4	2	2 1/2	-	4	53/4	-	-
1961	-	-	193/4	-	3 1/4	-	-	-	8	8 1/4	-	-
1962	-	-	31	-	-	-	-	-	7 1/2	41 1/2	-	-
1963	-	-	743/4	-	18	-	-	-	43 1/2	32 1/4	-	-
1964	-	-	59 1/2	-	26 1/2	-	6 1/2	13 3/4	116 3/4	105 1/2	223/4	893/4
1965	1 1/2	-	16 13/4	1/2	16 1/2	-	18 1/4	90	19 13/4	189 1/4	1243/4	-
1966	-	1	12 13/4	-	-	-	26 1/4	107	132	135 1/4	40 1/4	4 1/2
1967	-	1 1/4	180 1/4	-	14	-	123/4	78	18 1/4	194 1/4	68 1/4	-
1968	3	-	254 1/4	-	-	53/4	23/4	121 1/4	208	486 1/4	119 1/2	-
1969	5	-	247 1/2	3	-	-	5	483/4	133	405	14 1 1/4	-
1970	4 1/2	2 1/2	5 1/4	110 1/4	1/2	-	22 1/4	20	162 1/2	1973/4	161	-
1971	7 1/2	-	3 1/2	60 1/2	-	-	4 1/2	19	50	56 1/2	93	-
1972	10 1/4	-	-	210 1/2	-	-	12	104 1/2	101 1/4	223	1493/4	-
1973	1	3 1/4	83/4	272 1/4	-	7 1/4	24 1/4	156 3/4	141	2623/4	180	-
1974	7 1/4	-	2693/4	-	96 1/4	-	36 1/2	118 1/2	74	1703/4	167	-
1975	1	1 13/4	82	-	3 1/4	-	14	48	76 1/2	140	1173/4	-
1976	-	-	263/4	-	-	-	63/4	12 1/2	37 1/2	15 1/4	-	-
1977	-	-	32 1/4	-	-	-	-	33/4	21 1/4	13 1/4	-	-
1978	-	-	2 1/4	-	-	-	2	-	6 1/4	1/2	2	-

NOTE. Formerly 15, there are now 13 mukims. Kg. Bahru is now part of Renggit District to the south, also Pungor and S. Keluang which had no sago at all. Machap was in Keluang District in the 1974 Present Land Use.

SOURCE: RISDA, Negeri Johor, Batu Pahat, 7/5/79.

APPENDIX VII
Sago Area in Batu Pahat District, 1978

Mukim	Acreage	Mukim	Acreage
<u>Tg. Semborong</u>		Pt. Selamat	7.75
Pt. Sunning	6.5	Seri Dayung	5.0
Pt. Kasnawi	11.5	Asam Bukuk	<u>3.75</u>
Tg. Semborong	13.5		231.5
Pt. HJ. Mahmud	9.5	<u>Seri Gading</u>	
Sg. Bich	12.0	Pt. Londang, Pt. Bangkor	20
Lapis Talang Benut	5.75	Pt. Sri Paya	5
Sg. Rambut	5.75	Pt. Sagil	<u>40</u>
Pt. Jawa	13.5		65
Pt. Andin	14.25	<u>Linau</u>	
Pt. Talang Benut	3.0	Kg. Pt. Taman	} 132
Pt. Arshad	17.5	Kg. Pt. Japon	
Pt. Tengah Lapis	2.5	Kg. Pt. Lahak	
Pt. Pungguk	5.0	Kg. Pt. Beleman	
Pt. Tabor	15.25	Kt. Pt. Jabong	
Simpang Bekok	2.25	Kg. Pt. Kassim	
Pt. Amak	9.25	Kg. Pt. Mohd. Noor	
Pt. Tengah	15.0		
Pt. Adam	8.75		
Pt. Abbas Laut	25.25	Kg. Pt. Mobin	
Pt. 4, Jin. Muar	6.25	Kg. Pt. Sepanggal	} 75
Pt. Khalid	5.25	Kg. Pt. Bindu	
Pt. Seri Mendapat	3.0	Kg. Pt. Rahmat	
Pt. Jatuh	4.75		

APPENDIX VII
Sago Area in Batu Pahat District, 1978
 - continued -

Mukim	Acreage	Mukim	Acreage	
<u>Linau</u>				
Kg. Seri Bengkal	180	Kg. Panchor	80	
Kg. Pt. Yob	100	Kg. Pt. Sri Tanjung	}	
Parit Yeani	50	Kg. Sri Gading		
Kg. Pt. Khamis Hitam	40	Kg. Pt. Sengkuang		
	<u>577</u>	Kg. Pt. Pasir Panjang		
			<u>360</u>	
			<u>960</u>	
<u>Simpang Kiri</u>				
Kg. Pt. Linau Kecil	}	<u>Simpang Kiri</u>		
Kg. Pt. Linau Besar			Pt. Selulun	195
Kg. Pt. Kemper		350	Pt. Ju	142
Kg. Pt. Gantong			Pt. Ab. Rahaman	150
Kg. Pt. Kangkong			Pt. Betong	135
		Pt. Jawa	86	
Kg. Pt. Jorak Iltahi	}	Pt. Jalli, Pt. Yusof	158	
Kg. Pt. Bilai		120	Pt. Sulong-Sg. Simpang Kiri	<u>640</u>
Kg. Pt. Saaban				1,506
		<u>Seri Medan</u>		
<u>Simpang Kanan</u>				
Kg. Pt. Besar	}	Pt. Basri	5.5	
Kg. Pt. HU. Ali		50	Pt. Seri Wangi	56.5
		Pt. Jayous	22.5	
		Pt. Karujan	15.0	

APPENDIX VII
Sago Area in Batu Pahat District, 1978
 - continued -

Mukim	Acreage	Mukim	Acreage
<u>Seri Medan</u>		Pt. Baru	6.5
Pt. Terus	12.0	Pt. Laman	2.5
Pt. Singgahan	3.5	Pt. HJ. Yusof	2.75
Pt. Amat	4.0	Jln. Pt. Yaani	1.5
		Bt. Lapat (Pt. Sulong)	2.0
			133

NOTE. These statistics do not tally with those of RISDA, because they are estimates of areas planted in 1978, and would also include acreages not planted under RISDA.

Attempts to ascertain the nature of ownership of the riverine plantings in order to relate them to the location of processing facilities drew a blank at the Land Office in Batu Pahat, for it would have entailed an exhaustive search of the Mukim Registers (EMR). The Office had not kept this type of detailed analysis of the District's agrarian pattern, and neither was I able to make a similar search because of their lack of staff to cull appropriate files and registers for the purpose.

SOURCE: Dep. Agric., Batu Pahat.

APPENDIX VIII
Gross Sago and Tapioca Exports in Malaysia Barat, 1969-1979

Component	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Tapioca flour and meal											
Malaysia tonne	7,808	11,753	6,831	14,948	15,555	8,426	12,949	18,302	7,596	(2,490)	na
Malaysia Barat tonne	7,804	12,598	7,518	15,241	15,853	8,497	13,671	19,155	7,595	3,376	9,466
\$ thousand	1,544	2,158	1,818	3,153	3,842	3,383	4,463	7,183	3,061	1,413	4,682
FOB \$/ton	201	174	246	210	246	405	332	381	409	419	495
Sago flour and meal											
Malaysia tonne	31,039	31,286	24,553	20,022	25,394	25,373	24,308	30,993	31,240	31,073	na
Malaysia Barat tonne	1,944	2,765	1,918	2,032	2,309	1,854	1,696	3,064	2,333	2,116	2,326
\$ thousand	260	318	190	289	494	437	340	727	556	586	769
FOB \$/ton	136	117	101	145	217	239	204	241	238	277	331
Tapioca pearl											
Malaysia tonne	11,728	12,018	9,948	10,034	10,561	9,863	8,030	9,197	3,236	2,622	na
Malaysia Barat tonne	11,728	12,018	9,948	10,034	10,561	9,870	8,042	9,207	3,236	2,669	4,912
\$ thousand	2,370	2,787	3,106	2,219	3,315	4,146	2,911	3,940	1,697	1,820	2,742
FOB \$/ton	205	236	317	225	319	427	368	435	524	682	558
Sago pearl											
Malaysia Barat tonne	1,272	881	561	874	929	1,394	1,137	1,294	1,011	4,751	5,635
\$ thousand	256	237	188	223	307	575	394	717	481	2,186	2,657
FOB \$/ton	205	274	341	259	336	419	352	563	476	460	472

APPENDIX VIII
Gross Sego and Tapioca Exports in Malaysia Barat, 1969-1979
 - continued -

Component	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Tapioca flake											
Malaysia Barat tonne	844	3,568	685	954	1,477	366	701	509	302	366	788
\$ thousand	180	629	230	209	437	178	208	256	116	200	289
FOB \$/ton	462	558	293	449	333	203	332	306	397	546	367
Sego Refuse											
Malaysia Barat tonne	5,914	5,102	5,250	5,096	4,292	4,439	4,253	3,445	6,855	4,145	4,137
\$ thousand	112	105	108	106	83	93	123	99	172	139	110
FOB \$/ton	19	21	21	21	19	21	29	29	25	34	27

NOTE: 1979 figures are preliminary.

SOURCE: Malaysia, Ministry of Agriculture:

- (a) Import and Export Trade in Food and Agricultural Products, Peninsular Malaysia, 1972, 1977, 1979.
- (b) Import and Export Trade in Food and Agricultural Products, Malaysia, 1969-73; Idem (metric) 1972-76, 1977, 1978.