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Peanut Collaborative Research Support Program

USA ♦ PHILIPPINES

● **MONOGRAPH SERIES** ●

No. 1



TECHNICAL AND POLICY ISSUES RELATED TO STRENGTHENING THE MARKET FOR PEANUTS

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University of Georgia
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TECHNICAL AND POLICY ISSUES RELATED TO STRENGTHENING THE MARKET FOR PEANUTS

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CHAPTER 1

STATUS OF THE PEANUT INDUSTRY IN THE PHILIPPINES

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ABSTRACT

Philippine peanut production steadily increased to 36,000 metric tons (MT) in 1994-1996 from 31,000 MT in 1991. However, this is much lower than the reported 45,175 MT of peanuts produced in 1986.

Although peanut production is found throughout the country, the concentration of peanut trading and manufacturing industries is located in the National Capital Region (NCR). These are composed of the small-, medium-, and large-scale traders and manufacturers and represent approximately 58% of the country's firms involved in the peanut industry.

The inability of the Philippines to supply the needs of the peanut industry has led to importation. From 1987 (17,256,045 Kg valued at US\$ 6,791,920 FOB or Free on Board) to 1996 (58,966,949 Kg valued at US\$ 38,949,609 FOB) there was an increase of over 341% on peanut imports.

The Philippines exported peanut butter and other peanut products in 1994-1996. In 1996, a total of 19,130 Kg of peanut butter valued at US\$ 75,151 FOB and a total of 340,961 Kg of peanut products valued at US\$ 928,678 FOB were exported to United States of America, Canada, Australia, Hong Kong, United Arab Emirates (UAE), South Korea and Russia.

OBJECTIVES

The objective of this study was to identify technical and policy issues that have to be addressed to expand the market for peanut products. In this chapter, key production areas and production volumes of peanuts in the Philippines, the types and location of processing industries, the nature and volume of exported and imported peanut products were identified.

Key production areas and production volumes of raw peanuts are listed. Small-, medium-, or large-scale peanut processing and marketing industries and their location are identified, and the volume and value of imported peanuts and exported peanut products are listed.

METHODS

An initial list of peanut manufacturers/traders was prepared by obtaining the names and addresses of manufacturers from labels of peanut products in grocery shelves and supermarkets, and by consulting the yellow pages of the Philippine Long Distance Telephone (PLDT) directory. The list was verified with the list of peanut processors registered with the Bureau of Food & Drugs (BFAD) and with the Department of Trade & Industry (DTI) to come up with the final list. The letter sent to the agencies for this purpose, the responses, and the lists obtained are included in Appendices A to E of Chapter 4. Records at the Bureau of Agricultural Statistics (BAS) of the Department of Agriculture (DA) and at the National Census & Statistics Office (NCSO) were searched to obtain data on peanut production and on Philippine import and export of peanuts and peanut products.

RESULTS

Key Production Areas and Production Volumes of Raw Peanuts

Tables 1.1 and 1.2 show the volume of production of peanuts in the Philippines by region from 1990 to 1996. Total peanut production in the Philippines showed slight fluctuations in 1990-1993 but has steadily increased to 36,000 (MT) since 1994 (Fig. 1.1). This production volume, however, is lower than the reported 45,175 MT of peanuts produced in 1986. The Ilocos and the Cagayan Valley Regions in the northern part of the Philippines, were consistently found to be the primary producers of peanuts with production volumes ranging from 10,000-15,000 MT a year (Fig. 1.2). The province of Isabela, within the Luzon region, contributed a large amount of the country's total production, which in 1996 amounted to 36%. However, it was also in Luzon, in the province of Mindoro Oriental, where one can find the lowest peanut production.

Average Price of Philippine Peanuts

It can be seen from Table 1.3 that the average price of locally produced peanuts fluctuated from 1986 to 1996. The price of shelled peanuts in 1991 increased by 12.00 Philippine Peso (PHP) from the 1987 price. In 1992, a decrease by PHP 5.00 was followed by an

Table 1.1 Volume of Philippine peanut production by region and province, calendar year 1990-1993¹ (national and regional data in metric tons and provincial data in kilograms)

Region / Province	1990	1991	1992	1993
PHILIPPINES	34,793	31,398	33,993	34,030
CAR²	115	124	123	125
Benguet	14,840	15,000	17,296	17,450
Ifugao	71,660	74,790	81,322	82,298
Kalinga Apayao	4,000	3,500	3,599	3,788
Mt.Province	24,940	30,450	20,880	21,850
ILOCOS REGION	11,744	12,081	10,731	10,400
Ilocos Norte	3,053,000	3,009,300	2,992,000	2,386,000
Ilocos Sur	635,000	780,000	808,000	810,000
La Union	2,156,700	2,730,333	2,848,255	2,888,722
Pangasinan	5,898,880	5,561,780	4,082,370	4,314,832
CAGAYAN VALLEY	12,787	9,110	13,005	13,244
Cagayan	1,038,440	1,022,707	1,994,946	1,812,043
Isabela	10,216,940	6,513,000	9,538,105	10,009,970
Nueva Vizcaya	42,250	47,500	47,055	42,560
Quirino	1,489,500	1,527,200	1,424,808	1,379,793
CENTRAL LUZON	1,286	1,040	913	1,018
Bataan	107,875	113,800	114,128	116,632
Bulacan	81,575	58,368	61,600	50,550
Nueva Ecija	108,500	109,550	78,212	74,000
Pampanga	255,000	230,980	276,260	301,623
Tarlac	725,500	522,400	369,000	458,895
Zambales	7,600	5,100	13,830	16,073
SOUTHERN TAGALOG	2,335	2,024	2,051	2,056
Batangas	228,400	169,720	160,476	155,126
Cavite	280,570	210,200	212,365	184,106
Laguna	20,830	18,200	16,900	15,600
Marinduque	88,275	76,404	75,700	67,360
Mindoro Occidental	641,593	369,000	343,026	339,126
Mindoro Oriental	3,456	2,796	2,572	2,501
Palawan	199,200	213,000	206,250	211,140
Quezon	120,340	123,820	140,282	139,876
Rizal	37,880	42,918	46,663	45,835
Romblon	47,800	42,700	43,590	43,866
Aurora	667,050	754,850	803,225	851,844

Table 1.1 *continued...*

Region/ Province	1990	1991	1992	1993
BICOL REGION	808	1,025	1,155	1,147
Albay	425,500	593,395	742,216	749,960
Camarines Norte	82,900	83,650	77,799	75,637
Camarines Sur	143,770	214,000	211,678	201,960
Catanduanes	122,144	97,288	90,965	86,019
Masbate	18,750	18,200	17,007	16,170
Sorsogon	15,004	18,100	15,710	16,794
WESTERN VISAYAS	1,243	1,447	1,575	1,507
Aklan	18,810	17,157	18,240	19,630
Antique	64,450	358,400	494,000	428,510
Capiz	17,620	18,010	20,335	23,674
Guimaras	7,500	7,840	3,600	2,950
Iloilo	744,192	701,255	706,992	697,491
Negros Occidental	390,600	344,000	331,969	335,088
CENTRAL VISAYAS	900	1,025	1,011	1,055
Bohol	273,100	300,875	257,405	238,294
Cebu	261,700	268,264	305,166	370,171
Negros Oriental	214,814	200,284	266,845	276,183
Siquijor	150,725	255,300	181,603	180,209
EASTERN VISAYAS	543	464	493	491
Biliran ³				
Leyte	301,330	190,420	239,818	236,612
Southern Leyte	27,590	21,670	26,494	27,671
Eastern Samar	33,590	24,290	24,747	26,011
Northern Samar	5,364	3,604	3,841	3,991
Western Samar	175,160	224,280	198,365	196,464
WESTERN MINDANAO	533	507	507	507
Basilan	43,500	45,560	45,560	45,560
Zamboanga City	18,087	18,138	18,138	18,138
Zamboanga del Norte	48,000	63,000	63,000	63,000
Zamboanga del Sur	423,114	380,512	380,512	380,512
NORTHERN MINDANAO	675	667	668	674
Bukidnon	527,814	516,689	545,978	547,675
Camiguin	11,478	15,320	14,599	15,537
Misamis Occidental	48,800	30,600	33,901	35,020
Misamis Oriental	87,000	104,000	73,915	76,134

Table 1.1 *continued...*

Region/ Province	1990	1991	1992	1993
SOUTHERN MINDANAO	431	479	427	455
Davao City	219,600	271,200	263,539	284,331
Davao del Norte	102,847	118,700	82,654	82,452
Davao Oriental	34,444	37,286	29,912	29,868
Davao del Sur	52,500	35,510	34,631	35,278
Sarangani ⁴				6,550
South Cotabato	21,450	16,487	15,890	16,819
CENTRAL MINDANAO	627	597	541	549
Lanao del Norte	435,830	445,680	437,425	441,912
North Cotabato	157,500	129,330	82,251	85,037
Sultan Kudarat	33,940	22,230	21,560	22,313
CARAGA	220	218	217	220
Agusan del Norte	87,230	89,814	89,814	89,814
Agusan del Sur	64,900	66,700	66,195	68,463
Surigao del Norte	27,800	28,260	26,080	24,738
Surigao del Sur	40,000	33,593	34,751	37,400
ARMM⁵	545	591	575	581
Lanao del Sur	234,410	252,900	230,168	224,030
Maguindanao	151,300	181,000	185,470	189,181
Sulu	154,800	156,640	159,418	167,538
Tawi-Tawi	-- ⁶	--	--	--

¹ Bureau of Agricultural Statistics (1997)

² Cordillera Autonomous Region ⁴ Data before 1993 are subsumed in South Cotabato. Sarangani was part of South Cotabato until its creation as separate province in 1993

³ Data from 1994 are subsumed in Leyte. Biliran was part of Leyte until its creation as a separate province in 1994

⁴ Data from 1993 are subsumed in south Cotabato. Sarangani was part of South Cotabato until its creation as separate province in 1993.

⁵ Autonomous Region for Muslim Mindanao

⁶ -- = Not available

Table 1.2 Volume of Philippine peanut production by region and province, calendar year 1994-1996¹ (national and regional data in metric tons and provincial data in kilograms)

Region/Province	1994	1995	1996P²
PHILIPPINES	36,574	36,200	34,118
CAR³	115	88	81
Benguet	15,987	10,842	10,048
Ifugao	72,418	51,326	44,212
Kalinga Apayao	4,246	3,561	3,741
Mt.Province	22,120	22,360	22,960
ILOCOS REGION	10,440	10,385	10,192
Ilocos Norte	2,105,000	1,629,800	1,732,500
Ilocos Sur	812,000	853,000	877,116
La Union	2,977,890	3,015,451	2,500,449
Pangasinan	4,544,649	4,887,194	5,081,685
CAGAYAN VALLEY	15,097	15,399	13,370
Cagayan	1,996,962	2,023,583	1,736,486
Isabela	11,325,987	11,472,488	9,516,644
Nueva Vizcaya	80,360	128,860	240,080
Quirino	1,693,963	1,774,566	1,876,376
CENTRAL LUZON	1,100	1,104	1,117
Bataan	126,638	138,212	146,400
Bulacan	51,620	51,850	65,324
Nueva Ecija	76,400	65,400	52,246
Pampanga	310,487	319,122	319,243
Tarlac	518,551	518,551	523,737
Zambales	15,903	11,347	10,302
SOUTHERN TAGALOG	1,967	1,955	2,116
Batangas	145,521	147,704	141,796
Cavite	191,481	198,205	212,265
Laguna	15,444	14,698	11,581
Marinduque	75,480	83,882	90,829
Mindoro Occidental	343,818	343,828	347,164
Mindoro Oriental	2,344	1,586	1,586
Palawan	213,251	215,262	250,283
Quezon	140,609	142,643	146,524
Rizal	41,806	27,580	25,374
Romblon	44,339	43,655	51,603
Aurora	752,865	735,955	836,862

Table 1.2 *continued...*

Region/Province	1994	1995	1996 ^{P2}
BICOL REGION	1,265	1,216	1,149
Albay	858,490	833,766	770,195
Camarines Norte	81,119	84,788	87,889
Camarines Sur	207,324	207,335	209,172
Catanduanes	91,752	63,731	54,145
Masbate	10,908	10,908	11,017
Sorsogon	15,589	15,389	16,244
WESTERN VISAYAS	1,916	1,308	1,296
Aklan	32,549	29,464	29,163
Antique	711,420	147,000	149,810
Capiz	21,085	20,980	21,210
Guimaras	4,000	6,929	6,820
Iloilo	805,944	762,077	747,448
Negros Occidental	340,775	342,049	342,049
CENTRAL VISAYAS	1,173	1,261	1,305
Bohol	252,900	252,164	263,358
Cebu	415,169	419,503	421,208
Negros Oriental	281,707	359,165	361,867
Siquijor	223,303	230,034	258,325
EASTERN VISAYAS	431	419	372
Biliran	6,200	7,040	7,900
Leyte	168,724	154,102	163,666
Southern Leyte	29,055	28,828	22,976
Eastern Samar	26,011	26,271	26,534
Northern Samar	4,111	4,152	4,199
Western Samar	197,012	198,982	147,185
WESTERN MINDANAO	466	467	471
Basilan	43,561	44,237	45,710
Zamboanga City	18,805	19,093	19,664
Zamboanga del Norte	38,560	34,100	34,713
Zamboanga del Sur	365,530	369,303	370,732
NORTHERN MINDANAO	709	564	562
Bukidnon	557,114	423,695	424,115
Camiguin	16,608	17,002	16,905
Misamis Occidental	57,324	45,490	42,066
Misamis Oriental	77,879	77,885	79,174

Table 1.2 *continued...*

Region/Province	1994	1995	1996P²
SOUTHERN MINDANAO	465	477	488
Davao City	294,248	302,551	305,281
Davao del Norte	81,893	82,052	88,193
Davao Oriental	29,274	29,651	31,704
Davao del Sur	36,206	37,092	37,122
Sarangani	6,270	11,726	11,897
South Cotabato	17,493	13,989	14,171
CENTRAL MINDANAO	604	632	708
Lanao del Norte	496,574	523,811	600,588
North Cotabato	84,535	85,159	83,810
Sultan Kudarat	22,866	23,429	23,429
CARAGA	224	233	254
Agusan del Norte	93,940	93,940	104,273
Agusan del Sur	60,644	66,208	67,481
Surigao del Norte	27,148	28,425	30,729
Surigao del Sur	42,232	44,488	51,841
ARMM⁴	602	690	637
Lanao del Sur	245,399	245,188	169,090
Maguindanao	189,201	189,212	189,222
Sulu	167,489	165,206	165,561
Tawi-Tawi	-- ⁵	89,940	113,234

¹ Bureau of Agricultural Statistics (1997)

² P = Preliminary

³ Cordillera Autonomous Region

⁴ Autonomous Region for Muslim Mindanao

⁵ -- = Not available

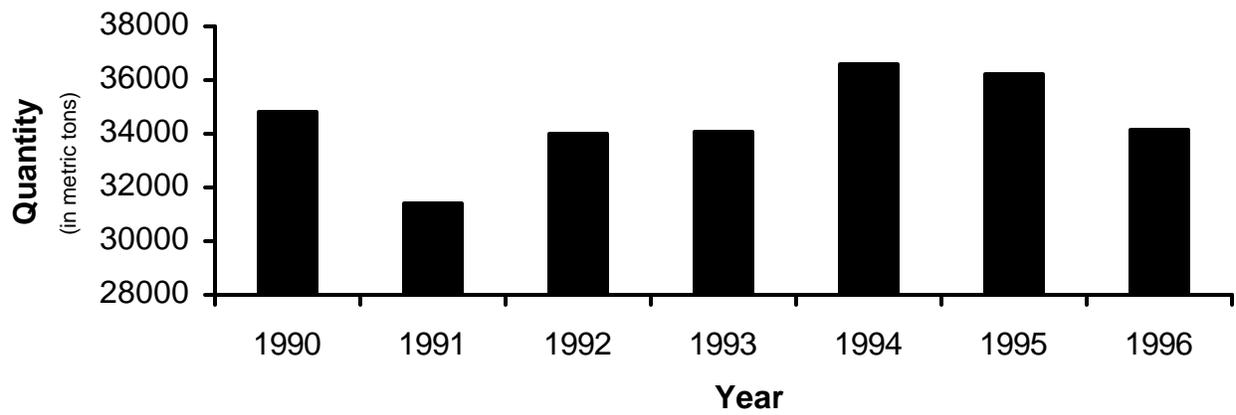


Fig 1.1 Peanut production in the Philippines (1990-1996)

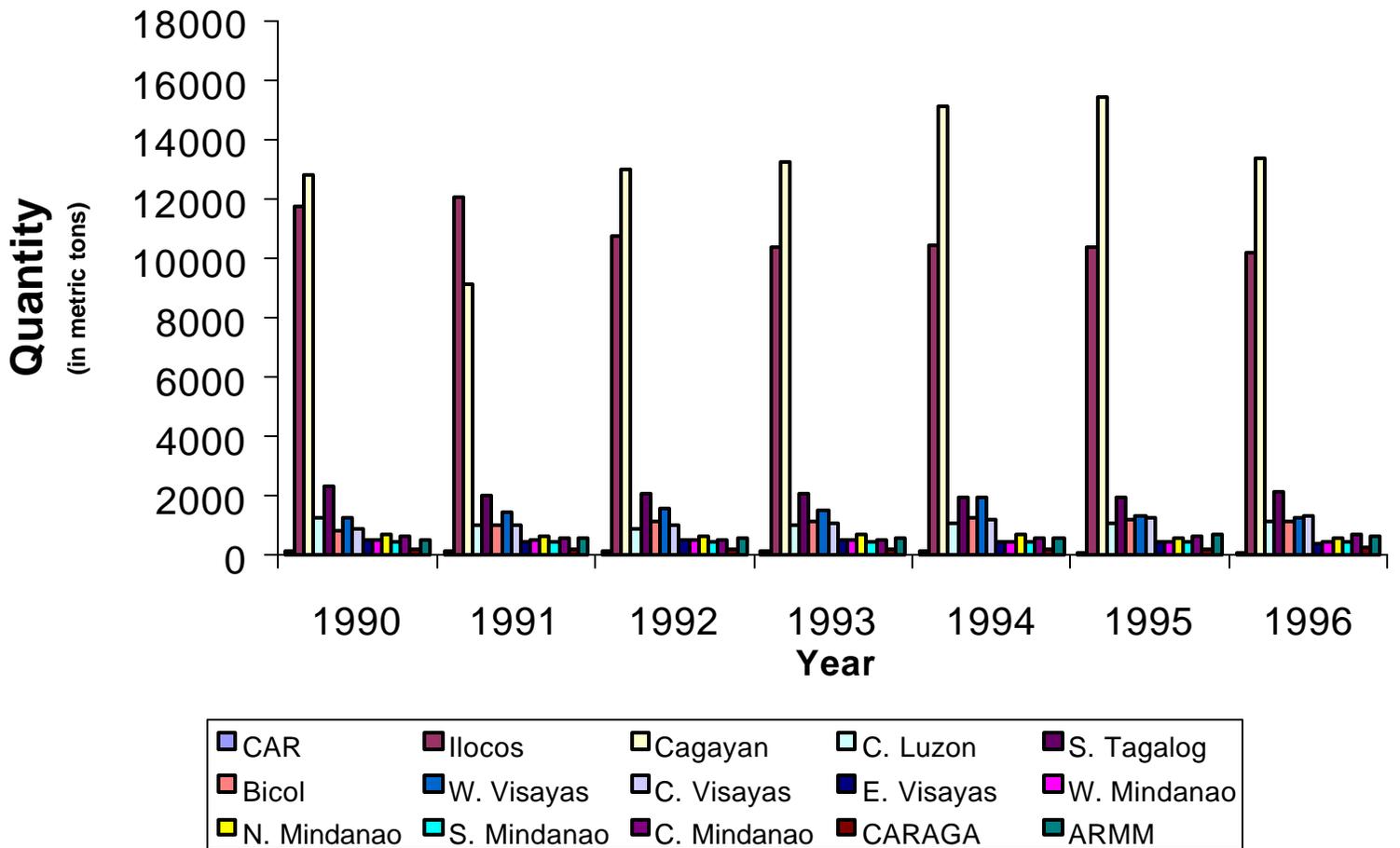


Fig. 1.2 Production of peanuts by region in the Philippines (1990-1996)

Table 1.3. Average price in Philippine peso¹ of locally produced peanuts/Kg²

Year	Location	Shelled	In- Shell
1986	Farm	-- ³	9.61
	Wholesale	19.35	--
	Retail	23.55	11.19
1987	Farm	15.57	8.11
	Wholesale	18.84	9.26
	Retail	22.69	11.73
1988	Farm	17.79	9.11
	Wholesale	16.42	7.10
	Retail	21.64	13.37
1989	Farm	18.81	10.38
	Wholesale	20.71	10.53
	Retail	24.78	16.89
1990	Farm	23.09	11.56
	Wholesale	26.46	12.53
	Retail	29.50	17.17
1991	Farm	27.26	13.43
	Wholesale	30.19	12.53
	Retail	34.20	20.44
1992	Farm	22.27	12.57
	Wholesale	26.43	11.06
	Retail	31.17	17.75
1993	Farm	--	13.10
	Wholesale	22.98	8.65
	Retail	27.49	19.89
1994	Farm	32.60	14.14
	Wholesale	27.57	21.16
	Retail	33.03	21.53
1995	Farm	28.81	13.40
	Wholesale	--	22.98
	Retail	--	23.37
1996	Farm	30.55	13.18
	Wholesale	--	25.51
	Retail	--	27.97

¹ 1\$ = PHP 40.00² Bureau of Agricultural Statistics (1997) ;³ -- = Not available

approximate PHP 10.00 increase the next year. These upward and downward trends in the price of shelled peanuts continued with an average decrease of PHP 4.00 in 1995 and a slight increase of PHP 1.00 in 1996. The fluctuations in price may have been due to high importation values of peanuts that were being sold at much lower prices.

Exports of Peanut Products

The Philippines processes peanuts for both local and foreign markets. It can be seen from Table 1.4 that the country's volume for exports has been increasing from the years 1994-1996. The exportation of peanut butter at the end of 1996 saw a 133% growth rate, with the United States of America (USA) representing 41% of the country's export market. When it comes to other processed peanut products, a similar growth of 140% was observed with Hong Kong, Saudi Arabia and the USA altogether accounting for 51% of the total processed peanut product exports. Ideally, raw peanuts for peanut processing should be available locally. However, Philippine production of peanuts cannot sustain the demand of local manufacturers of peanut products, who have to rely increasingly on imported peanuts. The use of imported peanuts gives manufacturers a wider range of suppliers who provide them with reliable source of raw material that satisfies their quality specifications and meet their requirements on a timely basis.

The benefits derived from procuring imported raw materials have left local peanut producers at a disadvantage. Lack of technical knowledge in profitable peanut varieties and processing techniques have left the local industry without much hope for future growth. If allowed to continue, the Philippines may have to import all of its raw and processed peanut products in the future. There is a critical need for the Philippine government to provide increased support (technical or otherwise) to peanut farmers to encourage local production. This would give the peanut production the needed boost to grow.

Peanut Processing and Marketing Industries in the Philippines

A list of peanut growers, traders and manufacturing industries in the Philippines is shown in Table 1.5. A larger percentage (58%) of the small-, medium- and large-scale industries are expectedly located in the NCR. The remainder is scattered over the provincial areas from Luzon to Mindanao. These manufacturers, although numerous, are considered micro-scale, with products intended for immediate consumption within their localities. The approximate distributions of firms engaged in the production of different products are peanut butter (39%), candies (22%), peanuts (35%) and sauces (4%).

Import Volume and Value of Peanuts and Peanut Products

The country's average production of approximately 36,000 MT of peanuts during the past three years (1994-1996) was small and could not meet the demand of local manufacturers of peanut products. To augment the shortage, the Philippines imported an average of about 50,000,000 Kg (or 50,000 MT) of shelled peanuts during this period valued at about US\$ 30,000,000 (Figure 1.4).

The Philippine importation of peanuts dramatically increased in the 90's (Fig. 1.3) from the reported 17,256,045 Kg valued at US\$ 6,791,920 FOB in 1987 (Garcia et al., 1990) to 58,966,949 Kg valued at US\$ 38,949,609 FOB in 1994, approximating a 341% increase. The major sources of imported shelled peanuts were China, Vietnam, India, Hongkong and Singapore. Although Philippine imports of shelled peanuts was large, the actual importation value may have been larger due to smuggled shipments that were not documented in the record books.

Table 1.4. Export volume and value of peanut products for 1994-1996¹

	1994		1995	
	Quantity (Kg)	FOB ² Value (US \$)	Quantity (Kg)	FOB ² Value (US \$)
Peanut Butter	14,367	55,570	12,091	53,582
Australia	1,210	5,057	672	2,865
Austria	450	1,755	-- ³	--
Bahrain	87	245	24	158
Belgium	--	--	229	1,374
Brunei Darussalam	218	1,111	--	--
Canada	1,303	5,095	983	4,229
Taiwan	13	52	--	--
France	551	2,126	750	5,394
Germany	41	160	--	--
Greece	--	--	101	388
Hong Kong	193	746	222	694
Italy	327	1,257	3,317	14,067
Kuwait	265	1,022	--	--
Marshall Is., Rep. Of	--	--	12	36
Netherlands	61	235	1,679	7,935
New Zealand	9	34	--	--
Norway	154	690	126	919
Saudi Arabia	400	1,540	751	2,895
Switzerland	48	154	65	225
Trust Territory of the Pacific Islands	69	266	355	1,406
United Arab Emirates	3,786	14,584	650	2,523
Oman	122	458	131	461
United Kingdom	1,064	4,234	943	3,632
United States of America	3,996	14,749	1,081	4,381
Other Peanut Products	243,116	596,383	296,262	801,469
Australia	5,025	15,134	6,471	17,816
Austria	625	1,929	336	960
Bahrain	4,427	18,649	450	1,417
Belgium	--	--	48	145
Brunei Darussalam	6,538	20,646	13,834	42,528
Canada	18,508	51,603	40,374	108,710
Taiwan	5,908	10,238	931	2,552
Denmark	272	775	182	519
France	301	1,074	393	1,662
Germany	2,24	6,762	432	1,064
Greece	2,496	7,547	623	2,298
Hong Kong	93,980	171,269	61,723	117,781
Italy	4,317	12,047	4,548	12,517
Japan	--	--	8,459	31,110
Korea	12,857	16,171	--	--
Kuwait	2,023	6,112	744	2,265

Table 1.4 *continued...*

	1994		1995	
	Quantity (Kg)	FOB ² Value (US \$)	Quantity (Kg)	FOB ² Value (US \$)
Nauru, Republic of	16	138	---	--
Netherlands	288	812	1,977	9,210
New Zealand	2,395	6,492	840	2,302
Norway	--	--	1,086	3,694
Palau, Rep. Of	505	2,075	645	2,558
Papua New Guinea	12	33	101	305
Saudi Arabia	9,894	30,356	31,665	87,866
Singapore	3,636	9,541	2,544	7,249
Sweden	2,600	5,790	--	--
Switzerland	145	418	45	108
Trust Territory of the Pacific Islands	5,539	16,582	6,189	18,530
Russian, Fed. Of	13,356	43,352	--	--
United Arab Emirates	11,999	48,557	7,256	22,031
Oman	461	1,316	2,121	6,035
Qatar	288	634	288	990
United Kingdom	5,080	14,378	4,703	13,986
United States of America	23,918	66,689	93,336	272,459
Guam	2,293	6,101	3,052	8,294
Hawaii	1,176	3,163	866	2,508

Table 1.4 *continued...*

	1996	
	Quantity (Kg)	FOB ² Value (US \$)
Peanut Butter	19,130	75,151
Australia	890	3,596
Austria	239	1,144
Brunei	102	532
Canada	1211	5042
Denmark	122	470
France	27	106
Greece	124	927
Hong Kong	280	770
Italy	1,496	6,333
Kuwait	1,017	3,918
Netherlands	312	2,003
Norway	449	2,052
Papua New Guinea	22	64
Saudi Arabia	502	1,991
Singapore	11	35
Spain	150	375
Switzerland	90	411
Trust Territory of the Pacific Islands	1,526	3,889
United Arab Emirates	909	4,684
Oman	218	840
United Kingdom	1,015	3,911
United States of America	7,789	29,687
Guam	619	2,371
Other Peanut Products	340,961	928,678
Australia	10,424	28,870
Austria	827	2,546
Bahrain	120	388
Belgium	290	894
Brunei	16,424	53,168
Canada	41,594	107,690
Denmark	340	961
Greece	384	1,189
Hong Kong	58,563	143,398
Italy	9,061	27,135
Japan	2,447	8,128
Korea	20,421	49,211
Kuwait	4,251	14,129
Malaysia	1,659	7,367
Federal State of Micronesia	144	440
Netherlands	1,219	3,383

Table 1.4 *continued...*

	Quantity (Kg)	1996 FOB² Value (US \$)
New Zealand	181	499
Norway	2,064	6,744
Other Pacific Island	9	49
Palau	798	3,150
Papua New Guinea	448	1,437
Saudi Arabia	59,530	146,190
Singapore	16,217	45,297
Switzerland	96	250
Trust Territory of the Pacific Islands	8,368	24,001
United Arab Emirates	9,172	26,480
Oman	1,997	5,607
United Kingdom	6,081	17,160
United States of America	55,845	168,905
Guam	4,090	10,959
Hawaii	7,897	23,053

¹ National Census and Statistics Office (1997)

² FOB means Free on Board

³ -- = Not available

Table 1.5. Peanut growers, traders and manufacturers in the Philippines¹

Company & Address	Product	Nature of Business	Contact Nos.
National Capital Region			
A&G Food Products 145 7 th St., Countryside Village Sta. Lucia, Pasig	Peanut Butter	Manufacturer	-- ²
A&G Nuthouse 26 Lisbon St., BF Homes Parañaque	Peanut	Manufacturer & Importer	Tel. 829-1508
ADR Food Products 292 Aquardients St., Sta. Monica, Novaliches, Quezon City	Peanut Butter & Candy	Manufacturer	--
Astir Philippines, Inc. 215 Mons St., San Juan	Peanut Butter	Manufacturer	--
B&R Manufacturing Corporation Edsa cor Rochester St., Mandaluyong	Peanut Butter	Manufacturer	--
California Manufacturing Company Km 18, SSH, Parañaque	Peanut Butter	Manufacturer	Tel. 838-8021 Fax 838-8676
Central Macaroni Co., Incorporation 512 Mariano Marcos St. San Juan, Metro Manila	--	Exporter/ Wholesaler	Tel. 704-955
CFC Corp., CFC Building, Pasig	Peanut Butter	Manufacturer	Tel. 671-3984 Fax 671-7099
Cocoa Foundation of the Philippines C/o NAFC, Elliptical Road Diliman, Quezon City	Peanut Butter	Manufacturer	Tel. 920-1778 926-2246 Fax 920-3995
Commonwealth Food Inc. Comfoods Bldg, Makati City	Peanut Snack	Manufacturer	Tel. 844-5661 Fax 817-8845

Table 1.5 *continued ...*

Company & Address	Product	Nature of Business	Contact Nos.
Crystalline Mktg. 1904 Sandejas St., PC	Peanuts	Manufacturer	Tel/Fax .521-8765
Cula's Mani Factory 6364 MH del Pilar St., Parañaque	Peanut Butter	Manufacturer	--
El Celsion Food Products 21 Sn Francisco St., Karuhatan, Valenzuela	Peanut Snack	Manufacturer	--
Ernie's Food Products 86 Katatagan St., Muzon Malabon	Peanut Butter	Manufacturer	--
Filkor Int'l Food Corp. Dasmariñas, Cavite	Peanut Candy	Manufacturer	--
Food Industries 2116 P. Tamo, Makati	Peanuts	Manufacturer	Tel. 810-0141 819-1102
GFI Ent., Inc. 63 J. Rizal St., Valenzuela	Peanuts	Manufacturer	Tel. 254-2008 291-5539
Globe Confectionery 137-H MH del Pilar, Malabon	Peanut Candy	Manufacturer	--
Gordon Food Corporation 46-A Bonifacio Avenue, Quezon City	Assorted Nuts	Manufacturer	Tel. 817-6143 Fax 812-1373
Hancock Foods Manufacturing 252 Benedictine St., Sun Valley, Paranaque	Peanut Butter Kare- kare Mix	Manufacturer	--
J. MA. Belinda Food Products 179 MH del Pilar St., Palatiw, Pasig	Peanut Butter	Manufacturer	--
JM3 Enterprises 262 JP Rizal, Project 4 Quezon City	Peanut Butter Adobo Peanut	Manufacturer	--
Johnson Food Manufacturing 215 Fresno St., Pasay City	Peanut Butter	Manufacturer	Tel. 523-519

Table 1.5 *continued...*

Company & Address	Product	Nature of Business	Contact Nos.
Kimlee Food Products 163 Skylark St., Strip 70 Village, Concepcion, Marikina	Peanut Butter	Manufacturer	--
Marigold Commodities Corp. 131 F Manalo St., San Juan	Peanut Sauce Mix	Manufacturer	Tel. 725-5704 Fax 725-0369
Milky Way Enterprises Corp. 53 A Kitanlad St., Quezon City	--	Wholesaler	--
Newborn Food Pds., Inc. 2442 Arsonnel St., Makati	Peanut Butter	Manufacturer	Tel. 844-5849 Fax 843-1005
New Natures Food Products 4-B Mango Road, Potrero, Malabon	Peanut Candy	Manufacturer	Tel. 287-1575 Fax 288-7179
Phil. Cocoa Corp. 23 M Tuazon St., Parang, Marikina	Peanut Snack	Manufacturer	Tel. 941-3592 941-4489
Polton's Food Products 120 Kagitingan St., Muzon Malabon	Peanut Butter	Manufacturer	--
Preferred Home Specialties JY Cpd, Km 2, Taguig	Peanut Butter	Manufacturer	Tel./Fax: 838-1338
RFM Snack Division Pioneer St., Mandaluyong	Peanut Sauce & Snack	Manufacturer	Tel. 631-8101 Fax 633-9664
Sagana Food Products 369 Tandang Sora St., Quezon City	Peanut Butter	Manufacturer	--
Samuya Food Mfg. 2451 Lakandula Ext., Hidalgo Village, Pasay City	Peanut Butter	Manufacturer	Tel. 844-1086 Fax 818-5954
San Felipe Food Products 7 G MIA Road, Interior Parañaque	Peanut Butter & Coated Nuts	Manufacturer	--

Table 1.5 *continued...*

Company & Address	Product	Nature of Business	Contact Nos.
Serg's Prod., Inc. 2304-B Tektite Rd., Pasig	Peanut Snack	Manufacturer	Tel. 655-0154 Fax 655-0148
Sugarland Int'l Pdt., Inc. 102 Buendia cor Roxas Blvd.	Peanut Butter	Importer	Tel. 831-1889 Fax 833-3044
SWC Food Manufacturing Company 41 C Rincon St., Malinta Valenzuela	Peanut Butter	Manufacturer	--
Tiongson Food Products 225 Gen. Luna St., Malabon	Peanut Butter	Manufacturer	Tel. 281-0868
Tobi Marketing, Inc. 8536 J de Leon St., San Dionicio, Sucat, Parañaque	Peanuts	Manufacturer and Exporter	Tel. 825-2189 827-7564
Tropic Resources Int'l. Inc. #42 BMA Ave., Quezon Ave., Quezon City	Peanuts	Manufacturer	Tel. 712-2870 Fax 712-2867
Twin Brother Trdg & Food Pdt. 1 Luna I St., San Agustin Malabon	Peanut Butter	Manufacturer	--
Vicmar Int'l Phils. Inc. Rm 204 Richbelt Terraces Bldg. #19 Annapolis Greenhills, San Juan	Kare-kare Mix	Manufacturer	Tel. 723-8808 722-5366 Fax 722-5366
REGION I			
(Includes Pangasinan, Ilocos Norte, Ilocos Sur, Abra, Benguet, San Fernando LA Union, Mt. Province, Baguio City, Dagupan City, San Carlos City, and Laoag City)			
Esther's Peanut Brittle Poblacion, Tuba, Benguet	Peanut Candy	Manufacturer	--
MM Peanut Brittle Zig Zag, Camp 7, Baguio City	Peanut Candy	Manufacturer	--

Table 1.5 *continued...*

Company & Address	Product	Nature of Business	Contact Nos.
REGION III			
(Includes Bulacan, Pampanga, Tarlac, Nueva Ecija, Bataan, Zambales, Angeles City, Cabanatuan City, San Jose City, and Olongapo City)			
Aling Mely's Fried Corn and Peanuts Pob. Bustos, Bulacan	Peanuts	Manufacturer	--
Nina's Homemade Peanut Butter San Agustin, Sta Rita, Pampanga	Peanut Butter	Manufacturer	--
Rachel's Peanut Brittle Tapuac District, Dagupan City	Peanut Brittle	Manufacturer	--
REGION IV			
(Includes Rizal, Batangas, Quezon, Laguna, Cavite, Mindoro, Palawan, San Pablo City, Romblon, and Marinduque)			
Annie Candy Manufacturing Km. 17 Aguinaldo Hi-way, Imus, Cavite	Peanut Candy	Manufacturer	Tel./Fax (96)362-2255
Ellen's Peanut Butter Tamayo, Sta. Cruz, Marinduque	Peanut Butter	Manufacturer	--
Jasmine Homemade Peanut Butter Tamayo, Sta. Cruz, Marinduque	Peanut Butter	Manufacturer	--
Kanji Food Products Km 20 Ortigas Ave., Cainta, Rizal	Cracker Nuts	Manufacturer	Tel. 655-1471 Fax 655-1471
Lydia's Peanut Butter & Candy Factory Barcelona Ext., Lucena City, Quezon	Peanut Butter	Manufacturer	--

Table 1.5 *continued...*

Company & Address	Product	Nature of Business	Contact Nos.
Rey Sweet Peanut Pansol, Padre Garcia Batangas	Peanut Candy	Manufacturer	--
Sandoval's Coco Jam 200 Cora St., Marick Subd. Cainta, Rizal	Peanut Butter	Manufacturer	--
REGION VI			
(Includes Negros Occidental, Antique, Iloilo City, Capiz, Aklan, Bacolod City, San Carlos City, Roxas City, and Bago City)			
Garit's Peniato & Peanut Products Nonoc, Larena, Siquijor	Peanuts	Manufacturer	--
Jonylene Peanut Butter 244 Burgos St., La Paz Iloilo City	Peanut Butter	Manufacturer	--
Odracir Atisor Peanut Proc. Lazi, Siquijor	Peanuts	Manufacturer	--
REGION VII			
(Includes Cebu City, Bohol, Negros Oriental, Dumaguete City, Lapu-lapu City, Toledo City, and Mandaue City)			
Carol Alvarez Peanut Kisses Graham Avenue, Bo-oy Tagbilaran City, Bohol	Peanut Kisses	Manufacturer	--
Cebu's El Gusto Tenaza Subd., Mabolo, Cebu City	Peanuts	Manufacturer	--
Donna's Peanut Kisses Lindaville, Tagbilaran City, Bohol	Peanut Kisses	Manufacturer	--
Lola Pureza's Inc. 16 B Sikatuna St., Parian, Cebu City	Peanut	Manufacturer	--

Table 1.5 *continued....*

Company & Address	Product	Nature of Business	Contact Nos.
Pergem Peanut & Food Pdts 44 MC Briones St. Cebu City	--	Manufacturer	--
REGION IX (Includes Sulu Town, Tawi-Tawi, Basilan, Zamboanga del Sur, Zamboanga del Norte, Zamboanga City, and Dipolog City)			
Home Made Peanut Products 170-B Cabato St., La Paz, Iloilo City	Peanut	Manufacturer	--
REGION X (Includes Cagayan de Oro City, Agusan del Norte, Agusan del Sur, Bukidnon, Misamis, Surigao del Norte, Surigao City, Ozamis City, Butuan City, and Gingoog City)			
Diona's Peanut Products Mobod, Oroquieta City Misamis Oriental	Peanut	Manufacturer	--
J&A Turrone 280 Yacapin St. Cagayan de Oro City Misamis Oriental	Proc. Peanuts	Manufacturer	--
Grace Peanut Delights Borromeo St. Surigao City Surigao del Norte	Peanuts	Manufacturer	--
La Montana Farm Dumilag, Bukidnon	Peanuts	Grower/ Trader	--
REGION XI (Includes Davao City, Davao del Sur, Davao Oriental, South Cotabato, Surigao del Sur, and General Santos City)			
Diodee's Salted Corn & Peanuts St. Gabriel Koronadal South Cotabato	Peanuts	Manufacturer	--
Lotus Food Products Yoga House, Pag-asa, Buhangin, Davao City	Peanut Butter & Salted Nuts	Buyer	--

Table 1.5 continued ...

Company & Address	Product	Nature of Business	Contact Nos.
Nelvhen Peanut Brittle San Antonio Village, Matina Davao City	Peanut Brittle	Manufacturer	--
REGION XII			
(Includes Lanao del Norte, Lanao del Sur, Maguindanao, Sultan Kudarat, North Cotabato, Iligan City, Marawi City, and Cotabato City)			
4H Homemade Delicacies L8 B7 Iluch Subd., Camague, Lanao del Norte	Peanut Brittle	Manufacturer	--
Chedengs Peanut Food Processing 20A Sabayle St., Iligan City, Lanao del Norte	Proc. Peanuts	Manufacturer	--
Libras Sol Peanuts Purok 13, Saray, Iligan City	Peanuts	Manufacturer	--

¹ Bureau of Food and Drug (1998) and Department of Trade and Industry (1998)

² -- = Not available

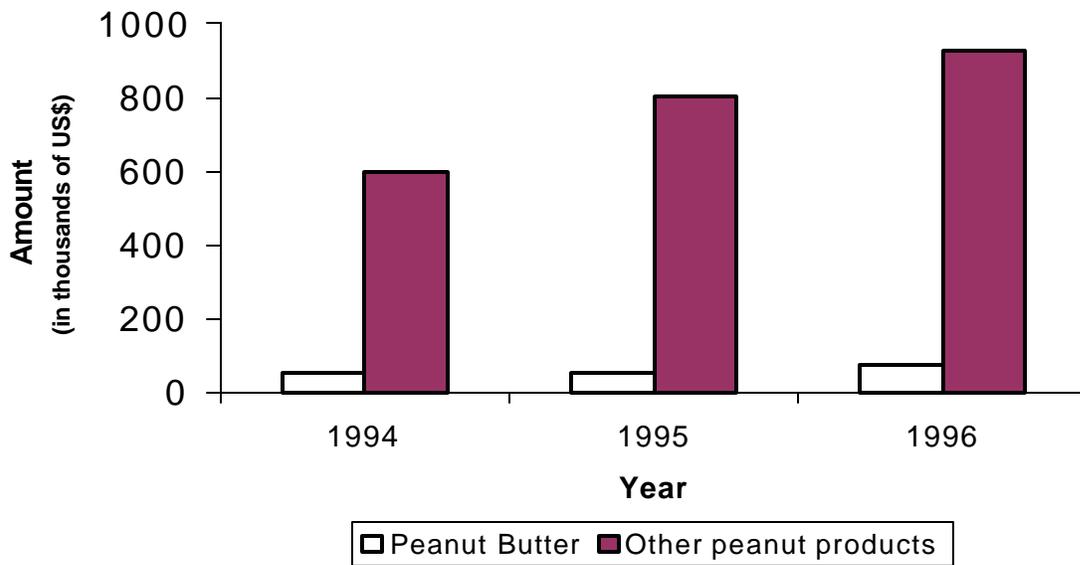
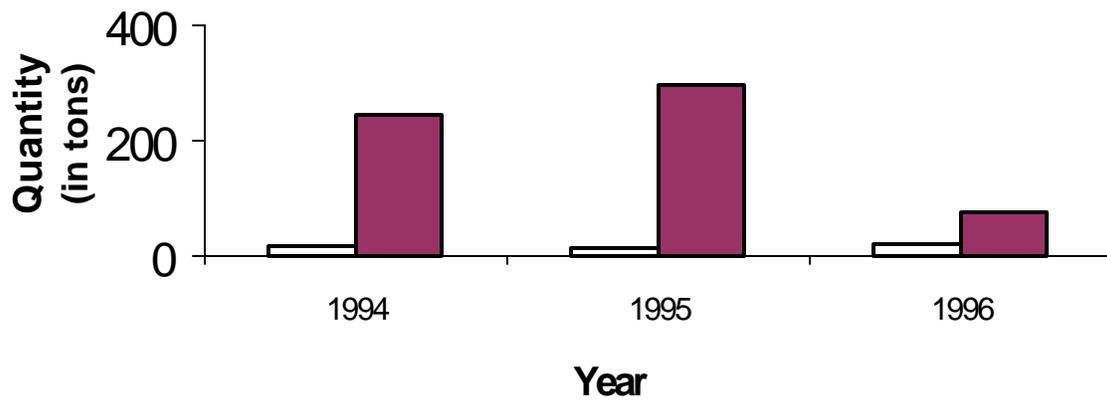


Fig. 1.3 Exportation of peanut and other peanut products (1994-1996)

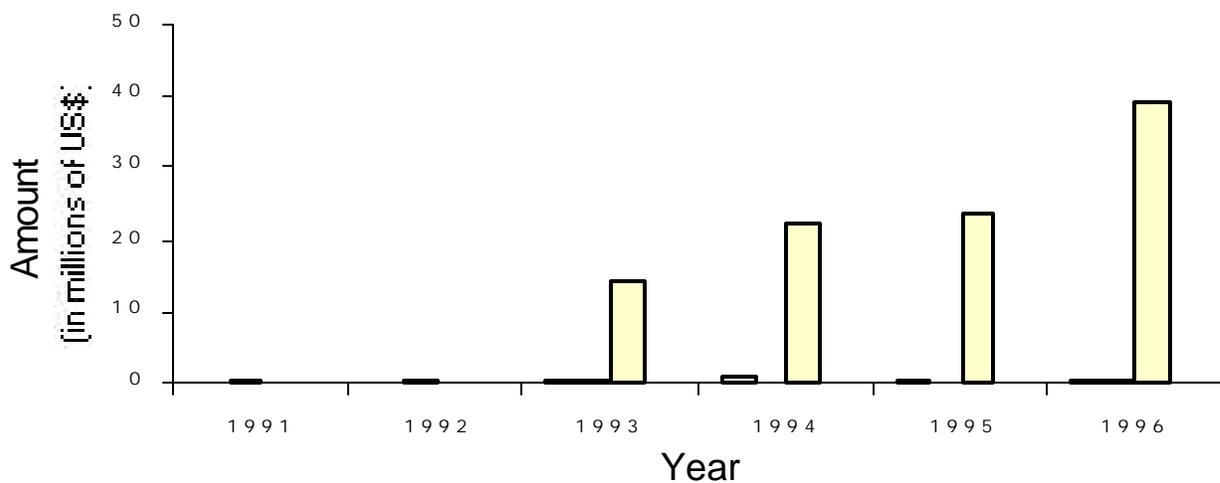
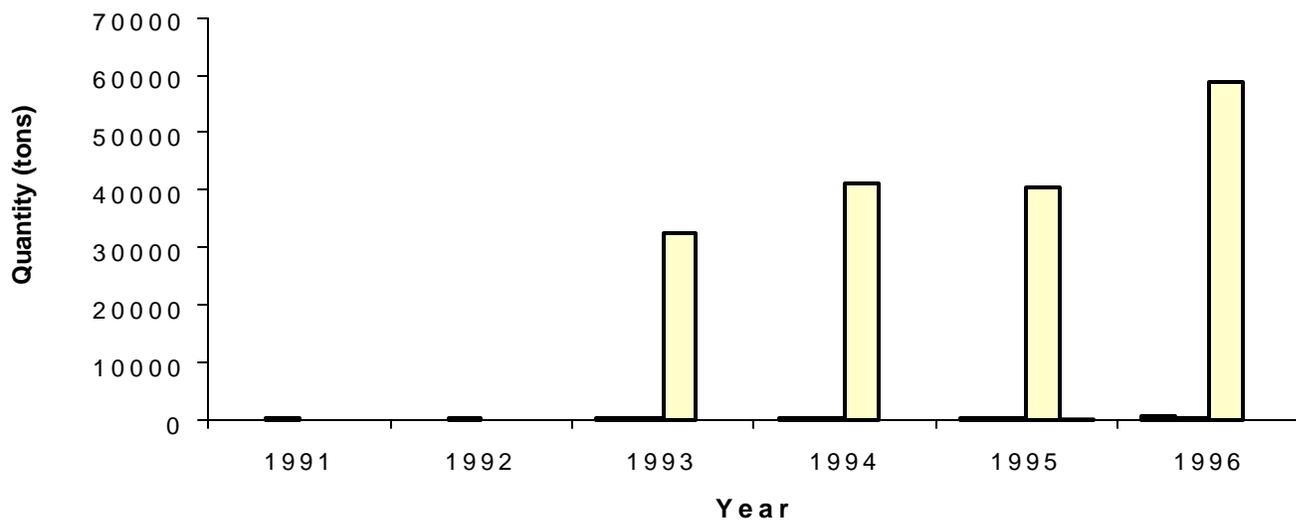


Fig. 1.4 Importation of peanuts and other peanut products (1991-1996)

There was likewise considerable importation of peanut butter and other prepared products (Table 1.6). Importation of peanut butter grew sluggishly in 1991-1992. This changed in the next years up to 1996, which saw a 247% growth rate. The USA figured as the predominant supplier in 1996, providing 64% of the total peanut butter imports. The importation of processed peanuts also increased through the years, but not as dramatic as the peanut butter imports. In 1996, a 150% growth was observed with Indonesia dominantly supplying 45% of the country's need for processed nuts. Overall, the USA, Italy, Australia, United Kingdom (UK), Canada and Union of Soviet Socialist Republic (USSR) supplied the country with the bulk of its importation needs for peanut products.

Export Volume and Value of Peanut Products

The Philippines exported peanut butter and other peanut products in 1994-1996 (Table 1.4). A total of 19,130 Kg of peanut butter valued at US\$ 75,151 FOB was exported in 1996 mainly to USA, Canada, Australia, UAE and UK with a 133% growth from 1994 (Fig. 1.3). Likewise, a 140% growth was observed for the export of other processed peanut products. A total of 340,961 Kg valued at US\$ 928,678 FOB was exported mainly to USA, Hongkong, Canada, South Korea, Russia and UAE. The major destinations of the peanut exports were countries with many Filipino residents and/or overseas contract workers who were the most probable target consumers of these exported peanut products.

Table 1.6 Import volume and value of peanuts for 1991-1996¹

Commodity/ Country	1991		1992	
	Quantity (Kg)	FOB ² Value (\$)	Quantity (Kg)	FOB ² Value (\$)
Peanut Butter	17,115	47,710	4,714	18,671
Canada	1,636	5,397	144	545
United States of America	2,526	9,160	2,000	7,599
Norway	122	820	-- ³	--
United Kingdom	877	3,658	281	1,047
Austria	--	--	114	428
Switzerland	--	--	24	75
Italy	--	--	684	2,568
Oman	604	2,178	178	718
Brunei	--	--	65	252
Hong Kong	--	--	7	25
Thailand	10,689	24,111	--	--
Australia	661	2,386	1,207	5,414
Taiwan	--	--	--	--
Groundnut (Peanut), Prepared				
Processed	269,363	613,615	263,224	588,500
Canada	20,157	56,367	5,040	13,908
United States of America	65,903	166,708	82,756	215,729
United Kingdom	2,942	8,111	2,546	7,221
Switzerland	--	--	389	1,219
Italy	--	--	5,321	15,101
Kuwait	1,093	3,085	5,240	15,573
Saudi Arabia	148	334	--	--
Oman	1,669	3,941	1,601	3,790
Union of Soviet Socialist Republic	3,468	8,425	3,631	9,183
Qatar	71	203	240	643
Singapore	2,411	8,033	2,743	6,887
Hong Kong	94,515	174,471	106,414	189,639
Australia	35,920	80,524	33,565	72,845
Shelled Peanuts		No data		No data
Peanuts in shell		No data		No data

Table 1.6 *continued...*

Commodity/ Country	1993		1994	
	Quantity (Kg)	FOB ² Value (\$)	Quantity (Kg)	FOB ² Value (\$)
Peanut Butter	212,951	240,516	397,451	786,535
Canada	--	--	2,940	5,200
United States of America	178,874	218,874	269,723	588,926
United Kingdom	--	--	6,716	19,421
Italy	4,286	9,488	--	--
Hong Kong	23,784	10,657	57,813	26,216
Taiwan	6,007	1,587	28,652	8,151
Singapore	--	--	21,607	38,621
Groundnut (Peanut), Prepared Processed	336,995	327,511	243,844	228,950
Canada	--	--	711	1,377
United States of America	90,831	88,744	32,518	132,006
Singapore	5,522	10,875	4,703	5,550
Hong Kong	206,883	215,923	95,186	45,597
Australia	7,214	3,085	3,631	1,807
Taiwan	25,045	6,545	16,027	5,899
India	200	252	--	--
Indonesia	1,300	2,087	--	--
China	--	--	14,799	6,156
Thailand	--	--	3,261	7,414
Vietnam	--	--	73,008	25,697
Shelled Peanuts	32,550,315	14,030,212	41,253,606	22,231,358
Australia	5,985,565	1,450,825	459	269
China (Rep.)	1,140,982	463,111	19,357,079	9,900,602
Hong Kong	13,119,665	6,274,073	7,226,517	4,442,982
India	2,450,733	1,237,559	777,586	400,996
Singapore	5,363,946	2,336,788	1,898,759	1,009,637
Thailand	895,072	488,771	5,503,241	3,188,755
United States of America	17,098	12,766	--	--
Vietnam	3,577,254	1,766,319	6,099,461	3,109,225
Taiwan	--	--	133,000	82,124
Indonesia	--	--	258,104	97,768
Peanuts in shell		No data		No data
China	--	--	--	--

Table 1.6 *continued...*

Commodity/ Country	1995		1996	
	Quantity (Kg)	FOB ² Value (\$)	Quantity (Kg)	FOB ² Value (\$)
Peanut Butter	270,639	542,299	526,120	702,738
Australia	2,323	3,515	--	--
Canada	27,149	40,437	22,981	24,564
United States of America	159,984	419,827	334,800	542,572
United Kingdom	1,899	8,166	--	--
Italy	3,728	18,144	--	--
Hong Kong	31,056	17,881	--	--
Taiwan	29,360	17,879	50,795	41,861
Singapore	14,360	10,046	48,548	66,588
Denmark	620	3,432	--	--
France	150	972	--	--
Indonesia	--	--	17,775	4,088
Groundnut (Peanut), Prepared				
Processed	209,322	227,189	323,372	269,653
Australia	1,259	669	2,849	1,421
China	14,000	8,081	44,502	22,979
Taiwan	9,470	11,129	32,653	34,489
Hong Kong	26,309	12,311	720	630
Singapore	25,231	46,370	3,937	13,732
Thailand	--	--	20,168	15,062
United States of America	46,030	127,408	54,290	134,376
Italy	1,225	3,034	--	--
Japan	14,318	2,841	--	--
Korea	1,077	1,400	--	--
Indonesia	70,403	13,946	144,517	31,372
Germany	--	--	19,736	15,688
Shelled Peanuts	40,685,287	23,731,889	58,966,949	38,949,609
Australia	5,431	2,507	10,615	3,927
China	24,888,482	14,177,438	36,773,494	25,554,346
Taiwan	--	--	35,000	22,350
France	--	--	160	166
Hong Kong	4,619,454	2,741,732	2,083,912	1,163,354
India	1,421,244	831,303	5,317,335	3,175,863
Indonesia	240,786	51,795	323,712	154,619
Korea	--	--	35,000	25,795
Pakistan	--	--	17,562	9,792
Singapore	852,046	502,831	1,746,750	1,047,837
Switzerland	--	--	1,698	863
Thailand	2,277,759	1,490,231	212,166	138,420
United States of America	--	--	499,998	145,200
Vietnam	6,184,699	3,808,444	11,908,547	7,507,027
Peanuts in shell	144,000	57,600	No data	No data
China	144,000	57,600	----	----

¹ National Census and Statistics Office (1997)² FOB means Free on Board³ -- = Not available

CONCLUSION

Factors affecting the status of the peanut industry in the Philippines were discussed. Key production areas and production volumes of peanuts in the Philippines, the types and location of processing industries, the nature and volume of exported and imported peanut products were identified. A listing of the small-, medium-, and large-scale peanut processors and marketing industries with addresses as well as the volume and value of imported peanuts and exported peanut products are available for reference.

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CHAPTER 2

INDUSTRY PRACTICES AND TECHNICAL CONSTRAINTS IN THE POST-HARVEST HANDLING, PROCESSING AND MARKETING OF PEANUT AND PEANUT-BASED PRODUCTS

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ABSTRACT

An industry survey was conducted to identify industry practices and technical constraints encountered by manufacturers in peanut postharvest handling, processing and marketing.

The objective was to identify potential Peanut CRSP R&D activities that will address technical constraints as well as potential industry collaborators in the R&D activity. The survey is essential to ensuring that the projects carried out are needed in the industry and thus will be utilized.

The survey covered key manufacturers in Metro Manila, Northern Luzon (Baguio and La Union), Visayas and Mindanao classified as small, medium and large. Cottage or home industries were not included in the study. There were 29 companies that responded to the survey questionnaires and 14 peanut manufacturers visited.

Results of the survey indicated that raw material cost, quality and lack of availability of peanuts, as well as product quality, were the major constraints to expanding markets. On raw material quality, the problems raised were non-uniform sizing, discolored nuts, and presence of molds and aflatoxin. Problems related to product quality were identified as lack of consistency, rancidity, limited shelf life and the presence of aflatoxins. The lack of appropriate equipment, technology and packaging, which affect product quality, were also cited as problems. Many of the problems have an R&D solution and will be pursued as joint projects with industry collaborators. Some potential collaborators were immediately identified. The survey results offer a potential pool of other collaborators.

Other problems such as the unavailability of raw materials and of packaging materials, lack of appropriate equipment and provision of training courses do not have an R&D solution. These problems need to be addressed so those product development goals for the expansion of markets can be achieved. Integration of Peanut CRSP with other government programs on peanuts is one way of achieving this.

The following types of government support, in order of importance, were identified: increasing the availability of peanuts and at lower cost, providing new technologies for the process and the product, provide training courses, establishing and enforcing product standards, providing laboratories for testing, and making packaging materials available especially to small processors.

Although raw material availability and price were the major constraints mentioned, technical problems were recognized and cited second as most frequently encountered problem by respondents. This recognition of technical problems and their role in limiting markets indicates that collaboration in R&D activities is a feasible strategy for assisting peanut processors in expanding their markets.

OBJECTIVES

The objective of this study was to identify technical and policy issues that have to be addressed to expand the market for peanuts. In this chapter, industry practices and technical constraints in peanut production, post-harvest handling, processing and marketing were identified.

Information on industry practices and technical constraints encountered in post-harvest handling, processing and marketing of peanut and peanut-based products was obtained. Technical constraints in peanut processing and marketing were evaluated. R&D projects to answer problems and potential industry collaborators were identified.

METHODS

Industry surveys were conducted in Metro Manila, Northern Luzon and in the Visayas and Mindanao areas. Prior to the initiation of the survey, a list of peanut processors was prepared and validated.

In the Metro Manila area, the list of peanut processors (Table 2.1) was prepared from the existing industry clients of the Food Development Center and through a survey of peanut products in the supermarkets. The list was then verified by calling individual companies by telephone. In the Northern Luzon area, the list of peanut processors (Table 2.2) was obtained from the Regional offices of the National Food Authority and Department of Trade and Industry while those in Visayas and Mindanao were requested from the Department of Trade and Industry (Table 2.3).

The companies were classified according to size as small, medium and large. The Bureau of Small and Medium Enterprises of the Department of Trade and Industry, uses capitalization as basis for classification. This was not used in this survey, as industries do not normally divulge this information to government technical institutions. Capitalization figures, because they are fixed values, do not reflect the level of operations of a given industry at the time of the survey. Therefore, the number of workers was used as the basis for classification as this has meaning in terms of volume of production and size of markets. The following criteria based on the number of workers normally existing in different sized plants was used. Small industries employ 6-25 workers; medium industries employ 26-150 workers and large industries employ 151 workers or more.

Only small, medium and large-scale peanut processors were selected in this study. Cottage or home scale industries or those that employ less than 6 workers were not included as these do not have the needed equipment and facilities to justify effective collaboration. Reaching cottage industries remains an objective of the program however and the requirements for doing this effectively will be established in the future.

A letter (Appendix F of Chapter 4) requesting to visit companies was distributed and follow-up calls were made to finalize the schedule of visits. A questionnaire (Appendix G of Chapter 4) to survey the technical needs of the industry was also prepared and sent to industries

for completion especially if they were unable to accommodate a visit by the Peanut CRSP team. A guideline questionnaire was used by the project team as a topic guide for industry discussions during the visits.

RESULTS

Participants

A total of 29 companies of which 14 were from Metro Manila, 4 from Northern Luzon and 11 from the Visayas and Mindanao were identified as active peanut processors. All responded to the survey questionnaires. Of the 29 companies surveyed, 14 were visited, 6 of these were in Metro Manila and 8 in the Visayas and Mindanao. Results of the survey are shown in Tables 2.4 - 2.7. These are presented in terms of frequency of responses. The List of Industries is shown in Tables 2.1 - 2.3. In view of the normal resistance of industries to share views with government, it may be surmised from the willingness of the industries to participate in the survey, that the industries in the above lists consider technology an important if not a strategic asset in their operations. These are the industries whose confidence Peanut CRSP should gain through successfully implemented projects, at this stage of the program.

Business Practices of Respondents

The following information on the business practices of the respondents was obtained. (Table 2.4).

Seventy nine percent (79%) of the respondents were engaged in peanut manufacturing alone, 17% in both manufacturing and trading while 7% were peanut users. Peanut users are companies that purchase processed peanuts for use as ingredients in peanut products.

Of the twenty-nine (29) respondents, 14 or 48% represented corporations and 11 or 38% were single proprietorships. The rest were classified as partnerships (3%), institutions (3%) and associations (3%). All of the companies classified as corporations were located in Metro Manila.

Companies in Metro Manila were either medium or large in size while those in the other regions were primarily small. Of the 14 respondents in Metro Manila, 6 were large and eight were medium scale. In Northern Luzon and in Visayas and Mindanao, 12 or 80% were small scale and 2 or 13% were medium scale. All the companies were expected to have the needed equipment and processing plant for technology adaptation based on the types of products that they produced.

Only five of the respondents indicated that they export their products. These companies were engaged in local and export sales. This finding however does not mean that only the products of companies directly exporting find a way into the export market. Several peanut products were exported without the knowledge of their manufacturers.

Technical Practices of Companies Surveyed

The companies surveyed produced peanut butter, ground or whole roasted peanuts (salted, greaseless and/or with skin), mixed nuts, cracker nuts, peanut candies (in chocolates, wafer wrapped as *pastillas de mani*, in sugar as peanut brittle), baked goods with peanuts as peanut cookies and peanut kisses and, instant peanut sauce. These data were qualitative; no percentages of companies involved in each product were reported.

Table 2.1 Peanut processors in the Metro Manila area¹

Company	Contact Person/Address	Product Line
1. California Mfg. Co. Inc.	Ms. Nora de Leon Technical Manager Km. 18, South Superhighway Paranaque, Metro Manila Tel. No. 823-8021/838-8021 Fax No. 823-8668	Peanut Butter
2. GFI Enterprises, Inc.	Ms. Myrna Fajardo 63 J. Rizal St., Karuhatan Valenzuela Tel. No.: 291-5558 Fax No. 291-5539	Growers Peanut
3. Food Industries, Inc.	Mr. Richard Chuaansu 2116 Pasong Tamo St. Makati City Tel. No. 810-1223 Fax No. 817-1223	Nagaraya Cracker Nuts
4. Marigold Commodities Corporation	Mr. Kim Lapuz 131 F. Manalo St. San Juan, Metro Manila Tel. No. 725-5704/724-9451 Fax. No. 726-0369	Kare-Kare Mix
5. Philippine Cocoa Corp.	Ms. Teresita Sales 23 M. Tuazon St. Parang, Marikina Tel. No. 941-3592 Fax No. 941-4489	Kean's Tip-Tops
6. Newborn Food Products, Incorporation	Mr. Angelito Pua 2442 Arsonnel St. Makati City Tel. No. 844-5847 Fax No. 843-1005	Peanut Butter
7. Samuya Food Mfg., Inc.	Ms. Elisa Mangubat 2451 Lakandula St., Pasay City Tel. No. 844-1086 Fax No. 818-5954	Ludy's Peanut Butter

Table 2.1 *continued* ...

Company	Contact Person/Address	Product Line
8. TOBI Marketing, Inc.	Mr. Andres Go President 8536 Juanita de Leon St. San Dionicio, Sucat Parañaque, Metro Manila Tel. No. 825-2518 Fax No. 829-1508	Mixed Nuts
9. A&G Nuthouse Corp.	Ms. Rose Adea President 26 Lisbon St. BF Homes, Parañaque Telefax: 829-1508	Toasted Peanuts
10. Monde Denmark Nissin Biscuits Corp.	Ms. Joanne Lagata Bo. Balibago, Sta Rosa Laguna 4026	Cookies with Peanuts
11. Serg's Products, Inc.	Ms. Loida Norico 2304 B- Tektite Road Pasig City Tel. No. 655-0154/634-2153 Fax No. 655-0148/34	Colin Mix Nuts
12. Goldilocks Bakeshop, Co., Inc.	Ms. Gay Castellano 439 Shaw Blvd. Mandaluyong City Tel. No. 723-6498 Fax No. 717-0641	Pastillas de Mani
13. TSB Enterprises	Atty. Thomas Emmanuel Romualdo President 148 Pinkian St. Philand Subd. Pasong Tamo, Quezon City Tel. No. 932-8066/ 932-8067 Fax No. 932-8064	Toasted Halves/ Ground Peanuts
14. Gordon Enterprises, Inc.	Ms. Zenaida Gordon FTI Complex Taguig, Metro Manila Tel. No. 838-4927 to 29 Fax No. 838-4598/802-2613	Roasted Peanuts

¹ Food Development Center (1998)

Table 2.2 Peanut processors in the Northern Luzon area¹

Company	Contact Person/ Address	Product Line
1. Mountain Maid Training Center	Ms. Judylyn Backong Good Shepherd Convent 15 Gibraltar St., Baguio City	Peanut Brittle
2. Baguio Family Peanut Brittle	Marcelino B. Dumulag Km. 4, Asin Road Baguio City	Peanut Brittle
3. Alan's Home Made Products	Nelia G. Parugganan 69 Upper P. Burgos Baguio City	Peanut Brittle
4. Esmabe's Food Products	Dolores Esmabe San Eugenio, Aringay La Union	Peanut Brittle

¹Regional Offices of National Food Authority and Department of Trade and Industry

Table 2.3 Peanut processors in the Visayas and Mindanao area¹

Company	Contact Person/Address	Product Line
1. Bucarez Food Processing Corporation	Mr. Virgilio R. Dalisay #8 New Capitol Site Tagbilaran City	Peanut Kisses
2. Grace Mae	Teodoro Balistoy 508 Tomas Oppus, Maasin, Southern Leyte	Peanut Butter Roasted Peanut
3. Home Product	Enelia Sanchez Bayong, Minglanilla, Cebu	Salted Peanuts
4. Virgie's Home Made (Food) Products	Virginia Chua 50 San Sebastian St., Bacolod City	Peanut Kisses Peanut Cake Peanut Pastillas
5. Buray Vendors Association	Patrocenia Abanta Buray Paranas (Wright) Samar	Peanut Brittle
6. Totong's	Joy Luengas No. 38 Lizares Yulo Bacolod City	Peanut Cookies
7. Jojie's Bakeshop	Engr. Arnold Labunog 38 V.P. Inting Ave. Tagbilaran City	Cai-Cai
8. Cebu Joy Food Corporation	Joy Francis Villaluz Cebu City	Peanut Butter
9. Cheding's Peanuts	Helen Blanco Sabayle St., Iligan City	Greaseless Peanut Roasted Peanut Peanut Butter
10. Rago's Restaurant	Ronald Cuello Legaspi St. Dumaguete City	Peanut Brittle
11. Franz	Bato, Leyte	Salted/Roasted Peanuts

¹ Department of Trade and Industry (1995)

Table 2.4 Profile of businesses engaged in peanut processing

Variable	Metro Manila	Northern Luzon	Visayas & Mindanao	Total
No. of Respondents	14	4	11	29
Nature of Business				
• Manufacturing	11	3	9	23(79%)
• Manufacturing/ Trading	1	1	3	5(17%)
• User	2	0	0	2(7%)
Years in Business				
• Less than 5 years	0	0	No data	0
• Less than 10 years	2	2	No data	4 (14%)
• More than 5 years	10	1	No data	11(38%)
Business Classification				
• Corporation	13	0	1	14(48%)
• Partnership	0	1	0	1(3%)
• Single Proprietorship	0	2	9	11(38%)
• Others: Institution	0	1	0	1(3%)
Association	0	0	1	1(3%)
• No answer	1	0	0	1(3%)
Size of Operation				
• Large	6	0	0	6(21%)
• Medium	8	1	1	10(34%)
• Small	0	3	9	12(41%)
• Cottage	0	0	1	1(3%)
Major Markets for Peanuts				
• Local	9	4	No data	13(45%)
• Export	0	0	No data	0
• Both	5	0	No data	5(17%)
Source of Peanuts				
• Own Production	0	0	1	1(3%)
• Farmers	1	1	0	2(7%)
• Local Traders	12	3	7	22(76%)
• Importers	12	1	0	12(41%)
Source of Technology				
• Local Practices	7	1	9	17(59%)
• Local R&D Institutes	8	0	5	13(45%)
• Foreign Companies	6	1	3	10(34%)
• Skilled Personnel from other companies	3	0	5	8(28%)
• Family Tradition/Trial & Error	6	2	5	13(45%)
• Local Processors	0	0	1	1(3%)

Table 2.4 continued....

Variable	Metro Manila	Northern Luzon	Visayas & Mindanao	Total
Level of Technical Activity				
• Develops new products	10	1	5	16(55%)
• Improves Products all the time/upgrade quality and comply with market standards	11	2	8	21(72%)
• With manpower exclusively on peanut R&D	1	0	0	1(3%)
• Sends people to training courses yearly	4	0	3	7(24%)
• Analyzes product regularly for aflatoxin and other quality factors	8	1	2	11(38%)
• Applying/Learning HACCP	7	0	4	11(38%)

The technologies used by processors were sourced locally from known practices (59%), from traditional family procedures (45%), from R&D Institutes (45%), foreign companies (34%) and other manufacturers (28%). Considering the role of traditional practices as a source of technology, it may be anticipated that the scientific base for these working technologies would be little understood. This situation makes it difficult for processors to use knowledge gained from experience to upgrade product characteristics or to establish the causes of problems in product quality.

The survey further indicated that seventy-one (71%) percent or 10 out of 14 Metro Manila processors were technologically active, developing new products and improving existing products. Fifty percent of these processors were applying the concept of Hazard Analysis Critical Control Point (HACCP) in their operations and 57% regularly analyzed their products for quality, particularly for the presence of aflatoxin.

Fifty (50%) percent and seventy-two (72%) percent of the small processors in Northern Luzon and in the Visayas and Mindanao regions were also constantly improving their products. However, only a few were aware of the concept of HACCP (27%) and tested their products for quality (20%). This could be due to less exposure to formal concepts of quality control.

Technical Constraints in the Production and Marketing of Peanut Products

The survey questionnaire asked respondents to choose from a list of potential technical constraints in the production and marketing of peanut products and to indicate other constraints if these were not listed. Table 2.5 shows the frequency with which listed problems were identified as constraints by the respondents.

Raw Material Constraints

The high price of peanuts, the assurance of supply and the presence of quality defects were the most frequently cited problems with the peanut raw material. Almost all (79%) of the companies, irrespective of location, cited the high prices of peanuts, both local and imported, as a problem. The assurance of supply however was a concern mainly of companies located in Metro Manila, perhaps because of their larger volume of operations. The small-scale processors had little concern for this problem, 0% in Northern Luzon and 36% in Visayas and Mindanao.

Quality defects were considered present in both local and imported peanuts. Manufacturers however preferred local peanuts to imported peanuts due to their better flavor (79%), texture (38%) and low purchasing risk.

Quality defects identified consisted of small and/or non-uniformly sized nuts and the presence of discolored, moldy and/or aflatoxin contaminated peanuts. A high number of respondents in Metro Manila (78% and 86% respectively) cited these defects as important problems. Fifty percent (50%) of respondents from Northern Luzon but only 36% of respondents in the Visayas and Mindanao likewise cited it. One company cited the presence of weevils in the raw material indicating improper storage.

Product Quality Constraints

Consistency in product quality. This was considered an important problem by 55% of the respondents. This problem was observed to be related to raw material quality and the inadequate control of processing conditions by fabricated equipment. Non-uniform size of raw peanuts for

Table 2.5 Problems encountered in producing peanut-based products

Variable	Metro Manila	Northern Luzon	Visayas & Mindanao	Total
No. of Respondents	14	4	11	29
Raw Material				
• Discolored	7	1	2	10(34%)
• Moldy/With aflatoxin	5	1	2	8(28%)
• Small size/Size Uniformity	11	2	4	17(59%)
• Assurance of quality	11	0	4	15(52%)
• Assurance of supply	11	0	4	15(52%)
• High price	11	3	9	23(79%)
• Others: Plenty of weevils	1	0	0	1(3%)
Advantages of Local Peanuts				
• Good flavor	10	4	9	23(79%)
• Good texture	4	2	5	11(38%)
• Low purchasing risk	6	1	3	10(34%)
• Others: Price usually lower	1	0	0	1(3%)
Product				
• Consistency of color	5	2	3	10(34%)
• Consistency of quality	7	2	7	16(55%)
• Oil separation	3	0	4	7(24%)
• Rancidity	8	1	5	14(48%)
• Aflatoxin	5	0	3	8(28%)
• Shelf life	8	1	0	9(31%)
• Others: Infestation	1	0	0	1(3%)
Operations				
• Cost Reduction	9	0	3	12(41%)
• Appropriate equipment and/or technology	10	0	4	14(48%)
• Training of workers	5	1	5	11(38%)
• Training of production supervisors	3	2	4	9(31%)
• Availability of technical manpower	4	1	4	9(31%)
• Quality/Unavailability of packaging	3	2	7	12(41%)
• Cost of packaging	4	0	7	11(38%)

Table 2.5 continued...

Variable	Metro Manila	Northern Luzon	Visayas & Mindanao	Total
Marketing/Storage				
• Deterioration in product quality	8	0	5	13(45%)
• Absence of aflatoxin	2	0	4	6(21%)
• Lack of knowledge of market standards	5	1	5	11(38%)
• Shelf life	10	0	4	14(48%)
• Others:				
Consignment mode of payment	0	0	4	4(14%)
Inability to meet demand	0	0	3	3(10%)

example led to non-uniform roasting (and color) of the product. Inadequate control of the temperature of roasting led to non-uniform color and early off-flavor development.

Aflatoxin. Interestingly, aflatoxin contamination was cited as a concern by only 17% of processors in Metro Manila and 10% in Visayas and Mindanao. It was not cited as a problem to the peanut brittle makers in Northern Luzon (0%). This could be attributed to the fact that aflatoxin is not monitored by regulatory agencies in local or imported peanuts and peanut products. The concern for aflatoxin is likely from processors who have experienced difficulty in getting their products to the export market.

Other product quality problems. Those problems cited were oil separation in peanut butter, rancidity and shelf life. Although these problems could be common to several processors, the R&D solution will vary according to the type of product produced and the processing system adapted.

Technical Constraints in Manufacturing

The medium and large-scale processors in Metro Manila (71%) cited the lack of appropriate equipment and/or technology as a technical constraint followed, by the need for cost reduction (64%). Small-scale manufacturers in northern Luzon had little realization (0%) and in the Visayas and Mindanao (36%), of the need for better equipment. This indicates that existing facilities in these small-scale industries suit the small volume of their operations.

Packaging. Most of the small processors (60%) however cited packaging, its quality, availability and cost, as the problem. In contrast only 28% of processors in Metro Manila cited packaging availability as a problem. The need for better quality packaging is an indication that small-scale processors in the regions have an interest to sell their products to more distant and discriminating markets.

Technical Concerns in Relation to Marketing

Shelf life and deterioration in product quality were the main problems encountered. The problem of limited product shelf life was cited by 71% of the processors in Metro Manila. Shelf life problems were not encountered by processors in Northern Luzon (0%) and only by 36% of processors in the Visayas and Mindanao, as the products of these small scales manufacturers were marketed locally. Inadequate knowledge of market standards was considered important by 45% of small processors in Visayas and Mindanao and to 36% of processors in Metro Manila.

Technical Constraints Relating to Manpower Availability and Skills

Availability of manpower was not a major concern but training of manpower was cited as necessary by many of the industries reached. Manpower training was cited by 82%, 75% and 57% of processors in Visayas and Mindanao, Northern Luzon and Metro Manila, respectively as needed.

Perceived Importance of the Constraints

Information was likewise obtained on the importance of technical problems in relation to other problems in the industry. The results shown in Table 2.6 indicate that for the medium and large scale processors in Metro Manila, peanut unavailability was the most important problem, based on the frequency (86%) with which it was cited as a problem by processors. Technical problems were the second most frequently cited (79%) followed by government regulations (64%). For the small processors in Visayas and Mindanao, technical problems were the most frequently cited followed by financial and manpower problems. For the small processors of Northern Luzon, financial problems were the most frequently cited. This is likely because, these processors produce only one type of peanut product, peanut brittle.

Need for Government Support

Areas where government support is needed is shown in Table 2.7 and indicated that Metro Manila processors seek government support in making raw peanuts more available (93%) and lower in cost (79%). This was an expected finding and translates to a call for more productive peanut production technologies. Support was also requested in the provision of new technologies (86%), manpower training (79%), laboratories for product testing (71%) and product standards that are enforced (64%). Small processors seek government support for new technologies (87%), reduction in the cost of peanuts (73%), establishment and enforcement of standards (60%) and greater availability of peanuts (60%).

Identification of Industrial Partners

Potential industry collaborators were immediately identified in the visits. They were interested in controlling rancidity in peanuts during storage and developing vitamin fortified peanut based children's snacks from peanut fines. The latter is a by-product of the production of ground peanuts. Specific proposals will have to be prepared for these collaborators and cost sharing mechanisms as well as other policies agreed upon. Other potential collaborators can be drawn from the list of industries in the survey. This list is a valuable resource as it represents industries that recognize the need for technology to improve their products and to address technical constraints in their operations.

Table 2.6 Perceived importance of the problems

Variable	Metro Manila	Northern Luzon	Visayas & Mindanao	Total (%)
No. of Respondents	14	4	11	29
Technical Problems	11	0	11	22(76%)
Financial Problems	6	2	7	15(52%)
Manpower Quality	6	0	7	13(45%)
Government Regulations	9	1	4	14(18%)
Export Standards	7	1	5	13(45%)
Raw Material Availability/ Quality	12	1	5	18(62%)
Others: Lack of Appropriate Equipment	0	0	1	1(3%)

Table 2.7 Areas where government support is needed

Variable	Metro Manila	Northern Luzon	Visayas & Mindanao	Total (%)
No. of Respondents	14	4	11	29
Make Peanuts Available	13	2	7	22(76%)
Make Packaging Materials Available	4	3	0	7(24%)
Reduce Local Peanut Cost	11	3	8	22(76%)
Provide Training Courses for Workers	11	3	0	14(48%)
Provide Laboratories for Analyses	10	2	0	12(41%)
Provide New Technologies	12	2	11	25(86%)
Establish and Enforce Product & Production Standards	9	2	7	18(62%)
Others: Provide Manpower	1	0	7	8(28%)

CONCLUSION

The technical constraints encountered by peanut processors in the production and marketing of their products involve raw material quality defects; product quality problems, operating constraints and product marketing problems. There were also non-technical constraints such as the high price of peanuts, the unavailability of supply and packaging materials, inadequacy of market standards and the need for manpower training.

Raw material quality defects were related to sizing, discolored peanuts, molds and aflatoxin contamination. These problems have to be addressed through better postharvest handling of peanuts at the farm. For imported peanuts, standards and regulations for raw peanut quality have to be adopted and implemented.

Product quality defects involved consistency, rancidity in storage, limited shelf life, and aflatoxin contamination. These are related to raw material quality defects and operating constraints arising from inappropriate equipment and unavailability of better packaging materials. Specific R&D activities to address these problems will be formulated in collaboration with the industry, as the approach will vary with product type and processing systems.

Many of the problems identified have an R&D solution and will be pursued as Peanut CRSP activities in joint collaboration with the industries reached in this survey. The recognition by these companies that technical problems exist and constrain the expansion of markets indicates that collaboration in R&D activities is a feasible strategy for developing existing peanut processors and their markets.

Other problems identified such as unavailability of raw materials and packaging materials, manpower training and the establishment of standards do not have a product development R&D solution. However, these will still have to be addressed if the goals in product development are to be achieved. Integration of Peanut CRSP with other national programs on peanuts will be necessary to address these problems.

Successful implementation of projects at this stage of the program will be critical to establishing collaboration as a long-term strategy for market development. The Peanut CRSP Team will have to gain technical expertise in the control of peanut rancidity, in the fortification of products, in appropriate equipment for peanut processing, in packaging and in the control of aflatoxin.

The activities undertaken resulted in the identification of industry practices and technical constraints encountered in peanut postharvest handling, processing and marketing of peanut products. Technical constraints and R&D needs for expanding the market for peanuts were identified. A report on technologies currently used for peanut production and processing has not been prepared however due to the limited number of industry visits made. An evaluation of the types of products being produced by the industry however provides adequate insight into the technologies that are being used in the industry. R&D projects that will answer technical problems in optimizing existing and new peanut products as well as industry collaborators have been identified in general terms. A description of specific R&D projects however can only be made after a thorough discussion with a potential collaborator and an agreement to collaborate has been established with specific industries.

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CHAPTER 3

GOVERNMENT PROGRAMS AND POLICIES TO ENHANCE PEANUT PRODUCTION, PROCESSING AND MARKETING

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ABSTRACT

An evaluation of prevailing government programs and regulations related to the peanut industry was conducted to ensure that product development goals are achievable within the government environment in which peanut processors operate. Five government programs and three regulations related to the peanut industry were identified.

The Gintong Ani for High Value Commercial Crops Program (GA-HVCCP) of the Department of Agriculture (DA) is the national flagship program for agricultural development. Peanut is a priority crop in this program. The Peanut Integrated Research and Development Program (Peanut IRDP) of the Department of Science and Technology of the Philippines is a research and technology adaptation program focused on improving farm productivity.

In addition to the above national programs, the Philippine Department of Agriculture through the Bureau of Plant Industry (BPI) implements seed and product development activities and through the Bureau of Postharvest Research and Extension (BPRE), carries out studies on postharvest handling systems, for peanuts.

The prevailing regulations applicable to the peanut industry are: a) the Seed Industry Development Act of 1992 or RA 7308 under the Department of Agriculture (DA) which calls for mandatory certification of seeds for planting, but is not yet applied to peanuts, b) the Agriculture and Fisheries Modernization Act of 1997 or RA 8435, also under the DA which places all standards development and implementation activities for agricultural and fisheries products solely under, the Bureau of Agricultural and Fisheries Products Standards (BAFPS), the Implementing Rules and Regulations for this Act are yet to be approved, and c) the Food Drug Cosmetic Act or RA 3720 implemented by the Department of Health (DOH). An Administrative Order under this Act defines standards for peanut butter. There are no provisions for the control of aflatoxins.

Government programs for increasing productivity in peanut production are well underway. Other development programs as well as existing regulations, do not play a visible role in strengthening the market.

There is need to link government programs for increasing the supply of peanuts with the needs of processors. Furthermore, a need to strengthen the capability of the industry to access market opportunities for peanuts through existing programs that enhance and promote quality and provide market information. Peanut CRSP can play a role in addressing these needs.

Recommendations were made for the integration of Peanut CRSP with the GA-HVCCP and the Peanut IRDP programs because of its strong market and product development focus. A workplan to accomplish this was formulated that includes areas where integration of Peanut CRSP with other government activities is desirable. It also recommends other activities for improving the industry's capabilities to access the market for peanuts.

OBJECTIVES

The objective of this study was to identify technical and policy issues that have to be addressed to expand the market for peanut products. In this chapter, government programs and policies that would enhance peanut production, processing and marketing of raw and processed peanut products were evaluated. Government agencies involved and current government programs/projects and policies on peanut production, processing and marketing were identified. Information on current government programs/projects and policies analyzed and related to Peanut CRSP, and policies for encouraging peanut production, processing and marketing were identified.

METHODS

Research on existing programs and policies of various government agencies in peanut production and processing was conducted. This was done by writing letters to government agencies requesting information on their programs/projects and policies that involve peanut production, processing and marketing of peanut products. Interviews of personnel directly involved in the projects were likewise done to verify the program/project objectives, components, status and other project details.

RESULTS

Evaluation of Government Programs for the Development of the Peanut Industry

The study showed that two government agencies and several state universities and research institutions are involved in projects for the development of the peanut industry. These are the Department of Agriculture through the Bureau of Plant Industry (BPI) and the Bureau of Post-harvest Research and Extension (BPRES), and the Department of Science and Technology through the Philippine Council for Agriculture Forestry and Natural Resources Research and Development (PCARRD). Involved likewise are the Cagayan Valley Integrated Agricultural Research Center (CVIARC), Cagayan Valley Agricultural Resources Research and Development, (CVARRD), Cagayan Valley Lowland and Marine Research Outreach Station (CVLMROS), educational institutions namely, Isabela State University, Quirino State College, Cagayan State University and local Government units and municipalities of Cagayan, Isabela and Quirino provinces.

Two government programs were implemented for the development of the industry, various phases of which are implemented by the above institutions. A summary of the status and description of the programs is listed in Table 3.1.

The Gintong Ani High Value Commercial Crops Program (GA-HVCCP)

This is the flagship program for agricultural development. The identified needs for peanuts are (1) market study and establishment of markets information systems, (2) reduction of

Table 3.1 Philippine government programs and projects

Programs/ Projects	Project Description and Status						
<p>1. Gintong Ani Program for High Value Commercial Crops Program (GA-HVCCP)</p>	<p>This is a national program aimed at expanding farmers' opportunities for increased income and consumer options for a wide variety of safe and nutritious foods. This was created in answer to problems raised by processors and marketers regarding the lack of supply of raw materials brought about by slow growth in production (Department of Agriculture, 1997).</p> <p>Under the GA-HVCC Program, peanut, among others, is considered a priority crop for development. Identified areas for development under the GA-HVCC Peanut Program are the provinces of La Union in Region I, Cagayan in Region II and Samar in Region VIII (Recide, 1997). The following are the identified needs for development under the GA-HVCC Peanut Program:</p> <table border="0" data-bbox="829 743 1917 1052"> <thead> <tr> <th data-bbox="850 751 955 776"><u>Province</u></th> <th data-bbox="1444 751 1640 776"><u>Identified Needs</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="850 816 955 841">La Union</td> <td data-bbox="982 816 1917 946">Market study mission and establishment of market info system; Reduction of incidence of aflatoxin by improving post-harvest handling R&D crop protection, Establishment of mechanical drying facilities, irrigation facilities and seed storage facilities</td> </tr> <tr> <td data-bbox="829 987 934 1011">Cagayan</td> <td data-bbox="982 987 1917 1052">Production of aflatoxin free peanut, establishment of storage facilities, processing plant and low-cost cold storage area</td> </tr> </tbody> </table>	<u>Province</u>	<u>Identified Needs</u>	La Union	Market study mission and establishment of market info system; Reduction of incidence of aflatoxin by improving post-harvest handling R&D crop protection, Establishment of mechanical drying facilities, irrigation facilities and seed storage facilities	Cagayan	Production of aflatoxin free peanut, establishment of storage facilities, processing plant and low-cost cold storage area
<u>Province</u>	<u>Identified Needs</u>						
La Union	Market study mission and establishment of market info system; Reduction of incidence of aflatoxin by improving post-harvest handling R&D crop protection, Establishment of mechanical drying facilities, irrigation facilities and seed storage facilities						
Cagayan	Production of aflatoxin free peanut, establishment of storage facilities, processing plant and low-cost cold storage area						
<p>2. Peanut Integrated Research and Development Program (IRDP)</p> <p>A. Technology Transfer and</p>	<p>This project is an inter-agency collaborative participation of the Cagayan Valley Agricultural Resources and Research Development (CVARRD), the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) and other national government agencies and NGO's.</p> <p>Under this program, Cagayan Valley is envisioned to establish an adequate seed support system that will accelerate peanut production in the region towards self-sufficiency (CVARRD, 1995).</p> <p>This component focuses on the establishment of a sustainable seed support system to fully solve a major problem of the peanut industry in the regions on the scarcity of quality seed supply. The</p>						

<p>Commercialization</p>	<p>activities under this component include the massive production of quality seeds from government institutions and selected seed growers/producers, conduct of field days, techno-fairs/techno-demo and investment in the Key Commercial Crop Development Program (KCCDP) of the Department of Agriculture –peanut areas (CVARRD, 1995).</p>
<p>B. Research and Development</p> <ul style="list-style-type: none"> • Peanut Varietal Improvement in Region 2 	<p>This program involves the evaluation of advanced breeding lines of peanut, the participatory evaluation of Philippine Seedboard Varieties of peanut in the key production areas, and technology adaptation trials on promising peanut varieties. Agencies involved in this program include the regional/provincial offices of DA, ISU, QSC, CSU.</p> <p>The objectives of the program are to: 1) screen and evaluate different advanced breeding lines of peanut for commercial production in Region 2, and 2) compare yield and adaptation of different promising peanut varieties under farmer’s field and the degree of acceptability among producers in the traditional peanut growing areas (Escano et al., 1997; CVARRD, 1995).</p> <p>Status: IPB Pn 88-21-24 tested during the 1995-96 dry season gave the highest yield out of five entries tested across two locations. This was recommended for seed multiplication to support its nomination approval as a variety by the Philippine Seedboard.</p> <p>From another set of breeding lines tested during the 1996 wet season, another promising line (IPB Pn 88-24-26) was identified as a high yielding variety, however, this yield level was obtained only in the sloppy areas of San Mariano where peanut wet season is very ideal.</p> <p>1996-97 trials have been established in Quirino and San Mariano in Isabela but data gathering is on going.</p> <p>From three different locations in Isabela (Qurino, Ilagan and Naguilian), results during the 1996 cropping season showed UPL Pn 10 and UPL Pn 12 leading in terms of yield but in terms of acceptability, UPL Pn 10 and BPI Pn 9 were preferred by farmers because of attractiveness and large seed size.</p>
<ul style="list-style-type: none"> • Development of Sustainable Peanut Seed Support Program for Region 2 	<p>The objective of this program is to sustain the availability of high quality seeds for planting by farmers in Region 2. Activities undertaken include the implementation of a barangay-based seed production program of acceptable peanut varieties in the region, identification and characterization of potential peanut seed production areas and pilot testing of village level seed storage technology</p>

<ul style="list-style-type: none"> • On-Farm Trials on the Promising/ Alternative Technologies for : • Socio-economic Studies on Peanut Production Systems • Peanut Processing C. Resource Management and Institutional Development 	<p>for peanut (Escano et al., 1997; CVARRD, 1995).</p> <p>Status: 83.5 hectares were planted with peanut by trained seed growers to support the seed requirements of the commercial growers in other traditional peanut areas. Bulk of this seed production activity was done in San Mariano, Quirino and Cordon, Isabela. Likewise, about 73 hectares were already planted with certified seeds from CVIARC and other seed growers. About 3630 hectares of existing arable areas in Isabela were identified for peanut production</p> <p>The objective of this project is to develop appropriate technology on nutrient management. This project includes pilot testing of developed post-harvest equipment for peanut, technology adaptation trials on the promising fertilizer management options for peanut, field testing of farm tools and implements for peanut production and on-farm testing of livestock production utilizing peanut residues (Escano et al., 1997; CVARRD, 1995).</p> <p>This project involves the conduct of studies on the socio-economic profile of organized and unorganized sectors in relation to growth of the peanut industry, cost and return analysis and impact assessment of peanut production and programs in the Region, formal and informal credit system of the peanut industry in the Region and the marketing system of peanut products, processed products and by-products (CVARRD, 1995).</p> <p>Activities under this project include village-level peanut processing and development of new peanut products.</p> <p>Status: Village level peanut processing had been developed. Technologies developed include peanut grading and peanut coating (Escano et al., 1997).</p> <p>This component focuses on the establishment of well-equipped cold storage facilities in every peanut-growing province in Region 2. All involved institutions shall likewise be equipped with basic post-harvest and/or product processing equipment to become efficient in the execution of their responsibility in the program. Manpower development shall likewise be conducted that will gear towards the strengthening of the consortium capability on peanut breeding for the improvement in yield and resistance to pests and diseases. Seed grower associations will likewise be organized to facilitate establishment of strong linkages with breeding institutions. Finally, the institutional development component objective is the creation of a Peanut Research & Training</p>
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<p>3. DA-CVIARC R&D Programs on Peanut</p> <p>A. Breeding Program</p> <ul style="list-style-type: none"> • Germplasm and Collection • Breeding Methodology • Varietal Development • Varietal Packing <p>B. Culture and Management Research-Related Projects</p> <ul style="list-style-type: none"> • Bacterial Wilt Management Trials • Irrigation Trials • Cropping Systems/Patterns <p>C. Technology Adaptation and Commercialization</p> <ul style="list-style-type: none"> • Technology Adaptation Trial on Peanut • Peanut Commercialization Project 	<p>Institute in Region 2 (CVARRD, 1995).</p> <p>DA-CVIARC is an implementing agency of projects under Peanut IRDP.</p> <p>This program aims to develop peanut varieties with improved adaptation to the target growing environment, resistance/tolerance to major biotic and abiotic stresses and improved product quality (Perdido, 1998).</p> <p>Status: The project has been implemented in 1996 in collaboration with ICRISAT and IPB. Selected promising lines from the germplasm materials sourced out from ICRISAT are now included as test entries in the yield trials. The continuous implementation of DA-IPB Peanut Collaborative Trials through the conduct of Preliminary Yield Trial (PYT), General Yield Trial (GYT) and National Cooperative Test (NCT) had supported the development and approval of UPL Pn 10, UPL Pn 12, PSB Pn 3 and other high-yielding varieties for commercial production.</p> <p>The project aims to develop crop and resource management technologies on peanut that will increase input efficiencies/ reduce production cost, increase yields and land productivity (Perdido, 1998).</p> <p>Status: Trials on the Management of Wilt to reduce the disease pressure is being undertaken in the station. Trials on Irrigation and Cropping Systems/ Patterns are carried out through super-impose trials in the farmers' field.</p> <p>The project aims to promote use of peanut improved varieties and appropriate management practices especially in the major production areas (Manuel et al., 1998; Perdido, 1998).</p> <p>Status: 103 farmers had been trained on seed production and 120 farmers on commercial production. In support to the seed production program, the Department of Agriculture programmed the procurement of 28 tons in the 1997 dry season in addition to the 72 tons procured/stocked during the previous seasons. Storage facilities in the research centers of collaborating agencies were likewise improved while piloting a low cost seed storage technology for peanut (Perdido, 1998).</p>
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<p>D. Development of Sustainable Peanut Seed Support Program</p> <ul style="list-style-type: none"> • Barangay-Based Seed Production Program • Piloting of Village Level Seed Storage Technology for Peanut <p>E. Germplasm Production and Distribution</p> <ul style="list-style-type: none"> • Production and Distribution of High Quality Seeds of Peanut 	<p>The program aims to establish viable seed production schemes of peanut to ensure sustainable seeds supply for the commercialization program in Region 2 (Perdido, 1998).</p> <p>Status: A group of 50 farmers with potential production areas for peanut were identified, organized, trained and accredited seed growers and supplier of seed materials in addition to government seed centers. Also, the garden-type production of peanut during wet season in hilly and rolling areas was introduced that serves as seed source of farmers during the regular cropping season (dry season). Likewise, the use of sealed-drum storage materials was introduced to farmers to keep/store a portion of their produce for planting in the regular cropping season.</p> <p>The program aims to produce foundation, registered and certified peanut seeds for distribution to seed growers in Region 2 (Perdido, 1998).</p> <p>Status: Yearly, CVIARC produces 5,000 – 6,000 Kg peanut seeds of high quality supplying the requirements of the seed growers.</p>
<p>4. Bureau of Plant Industry</p> <ul style="list-style-type: none"> • Seed Production Program • Production Development Program • 	<p>This is a regular activity of BPI which calls for the production of higher classes of peanut seeds for further multiplication and distribution to government seed farms and centers including private seed growers (Roperos, 1998).</p> <p>This is a regular activity of BPI which involves the product development and transfer of processing technologies to interested entrepreneurs (Roperos, 1998).</p> <p>Status: Processing technologies of various food products had been developed and monthly seminars conducted. Peanut products developed include peanut butter, peanut brittle and coated peanuts. Product formulations for above products are contained in a publication by the Bureau of Plant Industry entitled “Preservation of Fruits and Vegetables” Third Edition, 1996.</p>

<ul style="list-style-type: none"> • Evaluation of the Chemical Composition of Different Varieties of Peanut Affected by the Cropping Season 	<p>This is a regular activity of BPI, which involves the analyses of protein and fat contents of different peanut varieties to determine the highest yielding variety. The peanut variety which has the highest yield is then recommended for propagation (Roperos, 1998).</p>
<p>5. Research Project on “Groundnut Industry (Philippines)</p>	<p>The project was a joint undertaking of the Bureau of Post-Harvest Research and Extension and the Isabela State University in collaboration with the Maddela Peanut Planters Cooperative, Inc.</p> <p>The general objective of the project was to develop an appropriate production system in a groundnut farmer’s cooperative to enable the provision of services to its members to increase production and income, and to produce better quality, aflatoxin free nuts for the market (Isabela State University and NAPHIRE, 1997).</p> <p>Under this project, both the production and post-harvest aspects of peanut production was covered. The specific activities undertaken in the research project included 1) a farm socio-economic survey, 2) a case study of the Maddela Peanut Planters Cooperative, 3) the identification of Groundnut Cultivars Resistant to <i>Aspergillus flavus</i> Natural Invasion, 4) a Drought and Irrigation Management Experiment, 5) an Insect Pest Survey and Control, 6) an Economic Evaluation of the Seed Production Strategy, 7) Windrowing and Storage Studies, 8) Development and an Economic Evaluation of Groundnut Seed Storage Systems, and 9) Performance and Adaptability Testing of Postproduction facilities for groundnuts.</p> <p>Status: The project was started in October 1987 and was completed in December 1990.</p> <p>Specific findings:</p> <ol style="list-style-type: none"> 1. The lack of seeds for planting during the main cropping can be solved with the introduction of a seed storage technology for maintaining seed viability. The introduction of carbon dioxide gas in sealed polyethylene plastic bags can prolong seed longevity. Groundnuts can be safely stored in sealed polyethylene for six months if sun-dried from 6.7% to 9.6% moisture level, treated with 5% - 15% CO₂ gas and kept under ambient or low temperature conditions.

The introduction of 15% CO₂ gas in steel drums showed the highest percentages of seed viability and seedling vigor in seed samples. The viability of groundnut seeds dried to 6.7% - 9.6% can be prolonged for 6 months when kept in gas tight steel drums containing 15% CO₂.

2. The post-production handling practices necessary in the maintenance of groundnut quality after harvest vary under two environmental conditions. For the dry season harvests, groundnuts can be windrown for days in the field until the groundnuts are easily pulled from the plant. After windrowing, stripping should be done immediately to facilitate thorough drying of the nuts. Windrowing the peanuts after harvest during the rainy season, on the other hand, favors the growth of *Aspergillus flavus*, and consequently, aflatoxin contamination. Hence, groundnuts should be stripped immediately after harvest during the rainy season while drying should be done within three days after harvest to prevent significant build-up in aflatoxin. Groundnuts should be dried to moisture content of 8% before storage especially if storage is prolonged after six months.
3. 10 groundnut varieties showed consistency on resistance to natural invasion of *Aspergillus flavus* as follows: ICGS (E) 11, ICGS 106, ICGS 44, ICGS 170, ICGS 19, BPI-P9, JL-24, UPL-Pn-2, ISU-Pn-1 and ICGS 47. ICCGS (E) 11 was found to yield as high as 2.05 tons per hectare in the wet season. ICGS 50, on the other hand, showed potential of 3.08 tons per hectare in the dry season but showed inconsistent reaction to *Aspergillus flavus* natural invasion.

Out of the entries tested, five were forwarded to the MPPCI in Maddela, Quirino for multiplication. These are ICGS (E) 11, ICGS 50, JL 24, BPI-Pn-9 and ISU-Pn-1. These groundnut cultivars were selected in view of their yield potentials and resistance to *Aspergillus flavus* natural invasion. Irrigation applied 15 days before harvest resulted into higher resistance to *Aspergillus flavus* natural invasion.
4. Five groundnut roots and pods damaging soil insects/pests were found serious; three of which are confined in sandy loam areas while the other two are in clay loam soils. The use of available chemicals did not show effective control of these pests.
5. The use of alternative drying systems aside from the traditional sundrying technique was found necessary to effectively minimize toxin formation in groundnuts. Three drying systems (Rotary drum dryer, Silliman pit dryer, UPLB flatbed dryer) were tested and results showed

	<p>that the UPLB flatbed dryer provides the fastest rate of moisture removal in groundnuts. The highest and lowest mean drying rates were observed using the flatbed dryer (1.41% w.b./hr) and rotary drum dryer (0.16% w.b./hr), respectively. The Silliman pit dryer, on the other hand, had a mean drying rate of 0.74% w.b./hr.</p> <p>In addition to artificial/mechanical dryers, the introduction of mechanical threshers was found useful in times of labor scarcity to avoid delay in threshing and in minimizing aflatoxin contamination. Three mechanical threshers (KKU, AMDP and DMMMSU threshers) were tested and based on the performance parameters, the KKU thresher and AAMDP sheller have been identified as the most appropriate threshing and shelling systems for groundnuts, respectively. The use of these machines was found to minimize aflatoxin buildup in groundnuts and will enable farmers to increase their income.</p> <p>6. Eight alternative postharvest systems for groundnut had been identified. System 7 which consists of KKU Threshing + Sundrying + KKU Shelling was found to be the most viable system.</p>
<p>6. Research Projects of DA-CVLMROS</p> <ul style="list-style-type: none"> • Commercialization of Low Cost Peanut Seed Storage Technology 	<p>The objective of this project is to showcase the use of low cost seed storage technology as an alternative to cold storage in maintaining peanut seed viability for 6-8 months. In this project, two storage technologies developed by NAPHIRE (now BPRE) were pilot tested in Cagayan and Quirino province (Oli et al., 1997).</p> <p>Status: Project was implemented in Iguig, Amulung and Alcala with 32 new cooperators participating. Storage containers used were fabricated out of GI GA#26 which can contain 120 Kg inshell pods or the standard 200 liter capacity drum which can contain 60 Kg. Of the 31 farmer-cooperators, only three provided their own storage containers, all others got their containers from the project as a loan.</p>
<ul style="list-style-type: none"> • Acceptability of Legume Sheller in Selected Areas of Cagayan 	<p>The research involved the development of a multi-powered machine to shell peanut, mungbean and drybean for seed and commercial purposes. The machine can be pedal operated or powered by a 5 hp gasoline engine. The objective of the research is to assess the technical performance and acceptability of a legume sheller machine developed by CVLMROS in actual field operation for possible improvement or modification before its possible mass production (Oli et al., 1997a).</p>

	Status: Project duration started in 1995 ended 1998. General assessment of respondents toward the legume sheller showed 100% acceptability.
<ul style="list-style-type: none"> • Peanut Stripper-Sheller: A Versatile Device for Primary Processing of Peanut 	This research undertaking is an improvement of the DA-CVLMROS Multicrop Stripper/Thresher. This was modified to accommodate both stripping and shelling of peanut, the primary processes involved in peanut production. It is composed of a stripping/shelling drum; blower and oscillating sieve assemblies fabricated out of locally available materials. This is powered by a 5 hp gasoline engine which can be portable to suit sporadic small peanut farm across location. The machine features a replaceable hopper, concave screen, pulleys and belts which make it versatile for stripping and shelling of peanuts (Oli et al., 1997a).
<ul style="list-style-type: none"> • Design and Development of Peanut Stripper-Sheller Combine 	This research was undertaken to develop a machine that can perform both stripping and shelling of peanut. In this project, a peanut stripper-sheller combine was fabricated out of locally available materials. It features a stripping/shelling drum; blower and oscillating sieve assemblies. This is powered mechanically by a 5 hp gasoline engine. The machine is portable and can easily be transported by four individuals or hauled by tractor or carabao. The device is versatile. With minimal change and addition of parts, it can be used for stripping newly uprooted or windrowed peanut and shell peanut pods for seed and commercial purposes (Oli et al., 1997b).

the incidence of aflatoxin by improving postharvest handling, and (3) establishment of facilities for irrigation, mechanical drying, seed storage and processing plants. The priority provinces for development are La Union and Cagayan which produce more than 50% of the peanuts in the country (Recide, 1997).

The Peanut Integrated Research and Development Program (Peanut IRDP)

This is a national R&D program which involves developing improved peanut varieties, germplasm production and distribution, culture and management and related research, adaptation and commercialization of production technologies, and development of sustainable peanut seed support programs. The program is being implemented by the Department of Agriculture with CVIARC, CVARRD, and the CVLMROS and the Department of Science and Technology through PCARRD.

The program aims to enable the Cagayan Valley to establish an adequate seed support system for peanuts and increase production yields to 3-4 MT per hectare (from the present <1 MT/ha), through varietal improvements and adoption of promising technologies for peanut production. The project reported the following significant accomplishments:

Barangay based (village-based) garden-type seed production. This has solved the problem of seed shortage during the regular planting season and helped farmers use marginal sloppy land for seed production. The scheme is recommended for implementation in all peanuts producing municipalities (Manuel et al., 1998; Medrano and Perdido, 1998; Perdido et al., 1996).

High yielding varieties. These varieties achieve average yields of 1.40 to 1.50 tons of peanuts per hectare in peanut areas where these were introduced (Medrano and Perdido, 1998).

Development of a peanut stripper and sheller. These were developed to reduce the time and labor cost for the primary processing of peanuts at the farm (Oli et al., 1997a; Oli et al., 1997b).

Low cost seed storage technology. This was developed to allow farmers to keep good quality peanut seeds viable for 6 months (Oli et al., 1997).

The DA Linked Farm Cooperatives with Buyers of Seed and Commercial Produce Other Programs

In addition to the National programs, activities related to peanuts are being carried out in the implementation of various Government Regulations (Table 3.2) and by various agencies.

The Seed Industry Development Program Under RA 7308

This is implemented by the Bureau of Plant Industry (BPI) which is responsible for the monitoring of production, distribution and regulation of breeder, foundation and registered seeds. Research on plant improvement, genetic resource conservation and mass production of planting materials are done in coordination with the Institute of Plant Breeding of the University of the Philippines at Los Baños and the Seeds network of the Department of Agriculture.

Product Development Activities of the BPI

The BPI also implements a product development program that includes peanuts and evaluates the chemical composition of different varieties of peanuts. Peanut products developed

Table 3.2 Philippine government regulations on peanuts

REGULATION	DESCRIPTION
<p>1. Republic Act 3720 - Food Drug and Cosmetic Act</p> <p>Republic Act No. 3720, as Amended by Executive Order Nos. 851, 119, 175 - Food Drugs Device and Cosmetics Act</p> <p>Administrative Order No. 228 s. 1974</p>	<p>This is an act to insure safe and good quality supply of food and to regulate the production, sale and traffic of the same to protect the health of the people (Department of Health, 1975).</p> <p>This is an act to ensure the safety and purity of foods and cosmetics, and the purity, safety, efficacy and quality of drugs and devices being made available to the public, vesting the Bureau of Food and Drugs with Authority to Administer and enforce the laws pertaining thereto, and for other purposes (Congress of the Philippines, 1963).</p> <p>This Administrative Order (AO) contains the definitions and standards as well as the labelling requirements for peanut butter (Department of Health, 1975).</p> <p>Under AO. 228, peanut butter is defined as a food prepared from good quality peanuts that are absolutely free from molds, by grinding properly shelled and roasted bleached peanuts, in which the germ may or may not be included or unblanched peanuts including the skin and germ to which maybe added safe and suitable seasoning and stabilizing ingredients.</p> <p>The peanut butter shall have a medium brown color, spreadable, maybe moderately, but not excessively thin and stiff. In stabilized type, there maybe no more than slightly noticeable oil separation or in non-stabilized type, there maybe no excessive oil separation that causes noticeable dryness or that requires more than moderate mixing to disperse the oil, free from objectionable flavors and aromas and free from dark particles.</p> <p>The seasoning and stabilizing ingredients shall not exceed 12% of the weight of the finished product. The fat content shall not exceed 55% while the insoluble inorganic residues should not contain more than 2%. The seasoning and stabilizing ingredients referred to as substances that perform a useful function and are regarded as suitable except that artificial flavorings, artificial sweeteners, chemical preservatives, added vitamins and color additives are not suitable ingredients of peanut butter. Stabilizing ingredients shall be hydrogenated vegetable oils including partially hydrogenated vegetable oils.</p>

	<p>With regard to the Label Statement of Optional Ingredients, the following guidelines are stated: “If peanut butter is prepared from unblanched peanuts, the name shall show the fact by such statement as “prepared from unblanched peanuts (skin left on)” and such statement shall be printed on letters big enough to be seen under customary conditions of purchase or use and shall immediately precede or follow the words “peanut butter” without intervening written, printed or graphic matter”.</p> <p>The label of peanut butter shall name, by their common names, the optional ingredients used. If hydrogenated vegetable oil is used, the label statement of optional ingredients shall include the words “hydrogenated ____ oil” or hardened ____ oil, “the blank being filled in either with the names of vegetables sources of the oil alternately with the word “vegetable” for example “hydrogenated peanut oil” or “hardened peanut and cottonseed oils” or “hydrogenated vegetable oil”.</p>
<p>2. Republic Act 7308 – Seed Industry Development Act of 1992 and Administrative Order 10, series of 1994</p>	<p>This is an act to promote and develop the seed industry in the Philippines and create a National Seed Industry Council and for other purposes (Congress of the Philippines, 1992).</p> <p>This Act was created for the following purposes: 1) to conserve, preserve and develop the plant genetic resources of the nation, 2) encourage and hasten the propagation of all sectors engaged in the industry, integrate all their activities, and provide assistance to them, 3) consider the seed industry as a preferred area of investment and 4) encourage the private sector to engage in seed research and development and in mass production and distribution of good quality seeds, and 5) provide the local seed industry protection against unfair competition from imported seeds.</p> <p>Under RA 7308, the Council shall adopt a Seed Industry Development Program, which shall be implemented by its constituent agencies. A network of seed centers, known as the National Seed Network shall be established at the Bureau of Plant Industry and major agricultural colleges and universities to produce sufficient quantities of breeder, foundation and registered seeds of all varieties developed by the government sector. Plant biological activities related to plant improvement, genetic resources conservation and in vitro mass production of planting materials shall be provided by the Institute of Plant Breeding (Congress of the Philippines, 1992).</p>

include peanut butter, peanut brittle and coated peanuts. Procedures for the making of the above products are contained in a publication entitled “Preservation of Fruits and Vegetables “ (Bureau of Plant Industry, 1996). Regular seminars are conducted once a month.

Peanut Postharvest Studies of the Bureau of Postharvest Research and Extension (BPRE)

BPRE is part of the Department of Agriculture and is responsible for the implementation of postharvest research activities. The Bureau recently established a production and post-harvest processing system for peanuts in cooperation with a peanut farmer’s co-operative (Isabela State University and NAPHIRE, 1997). It included among others identification of groundnut cultivars resistant to *Aspergillus flavus*, drought and irrigation management, insect pest survey and control, a seed production strategy, windrowing and storage and performance and acceptability testing of post-production facilities for groundnuts. Although successful, the program is awaiting the provision of funds for wider application of the system developed.

Linkages Between Peanut Production and Processing

This study revealed that there are no organized linkages between the farmer cooperatives in the peanut production programs of government with commercial peanut manufacturers. Such linkage is needed in understanding product needs and developing the farmer’s capabilities to meet these needs.

Government programs on peanut are lacking in product R&D. There is limited information on the R&D needs of processed peanut products. While peanut utilization is an identified area of concern, there is weak identification of problems.

Processing technologies developed under the Peanut IRDP are intended only for village-level processing. Processing technologies developed by the BPI are recipes intended for home use with no indications of processing conditions and control of raw material and product quality. These recipes are valuable to home scale producers but have limited value as basis for process and product control.

The integration of Peanut CRSP with product development activities of BPI and peanut processing R&D under the Peanut IRDP is recommended. Collaboration with Peanut CRSP will give these programs a stronger market development focus.

Evaluation of Regulatory Activities Related to Peanut Production and Marketing

Three government regulations affect peanut production and marketing. These are the Seed Industry Development Act and the Agriculture and Fisheries Modernization Act of 1997 or RA 8435 which are both implemented by the Department of Agriculture and the Food Drug and Cosmetic Act or RA 3720 under the mandate of the Department of Health. A summary of these Acts is found in Table 3.2.

The Seed Industry Development Act

This regulation aims to provide and sustain adequate supply of high quality seeds of superior crop cultivars to farmers. It is implemented by the Bureau of Plant Industry of the DA. However, at present, there are no certified seeds for peanut production.

The Agriculture and Fisheries Modernization Act of 1997 or RA 8435

This act provides for the creation of a Bureau of Agriculture and Fisheries Product Standards, BAFPS (Congress of the Philippines, 1997). Properly implemented, the Act should streamline the process for the development and implementation of standards for peanuts and peanut products. Presently, the Implementing Rules and Regulations for RA 8435 are in the process of approval. Coordination of BAFPS with regulatory agencies in the Department of Health will be necessary.

Republic Act 3720

The Bureau of Food and Drug (BFAD) of the Department of Health (1975) is the government agency mandated by Republic Act 3720. This act was promulgated to ensure the safety and purity of foods for human consumption. Under the Act, BFAD promulgated an Administrative Order (No. 228 s 1974) on definitions, standards and labeling requirements for peanut butter. The regulation does not allow the addition of several compounds to peanut butter, among them vitamins. This prohibition needs to be lifted, as it will prevent the marketing of peanut products with improved nutritional values. It may not be difficult to do this in view of the existing program in the DOH for the fortification of foods.

Existing BFAD regulations do not contain provisions for the regulation of aflatoxin, a potent carcinogen and common contaminant of peanuts. BFAD has in the past however ordered the withdrawal of aflatoxin containing peanuts and peanut products from the market based on the general provision of Chapter VI of Republic Act 3420 which prohibits the manufacture, importation and sale of food that is adulterated (with aflatoxins) or misbranded. The limit for aflatoxins was set at 20 ppb, which is the defect action level for aflatoxin in peanut butter of most countries.

An expressed regulation for the presence of aflatoxin in peanuts could result in better control of the problem, as it would provide clear guidance to farmers and manufacturers. Moreover, in the absence of a regulation for the control of aflatoxin, imported peanuts, which now constitute the bulk of raw materials used by peanut manufacturers, are not inspected for this contaminant.

Despite the absence of regulations for aflatoxins, peanut manufacturers interviewed in this study were aware of the problem and exercised control in the manufacturing process through control of raw material quality and analysis of the finished product. The fear of detection of aflatoxin in peanut products sent for export, limits expansion of local peanut products into this market.

Programs Needing Development for Enhancing Peanut Production and Marketing

It is evident that existing government programs for the development of the peanut industry are heavily focused on increasing production of peanuts. It is also clear that implementation of the production programs are well underway. Other programs however, as well as existing regulations do not play a visible role in strengthening the development of the market for peanuts. Government programs need further development in the areas of supply, product quality, marketing, and policy for enhancing peanut exports.

Supply - Linkage of Raw Material Supply with the Needs of the Market

Peanut manufacturers and Peanut CRSP should be linked with production programs of the government to achieve closer matching of supply requirements in terms of quality, price, availability and regularity of supply. The possibility of having an industry-farmer-government organization to link peanut farmers in the Cagayan Valley and peanut manufacturers collaborating with Peanut CRSP in Metro Manila, for this purpose can be explored.

Enhancement of Product Quality

The quality problems of the peanut manufacturer being worked on the Peanut CRSP should be integrated into existing R&D programs for peanuts and implemented with industry collaboration. The latter is to ensure the existence of an internal demand in the industry and immediate technology transfer. A proposed workplan for this integration as well as for other needed activities is enclosed as Table 3.3.

Standards for ensuring the quality and safety of peanuts and peanut products should be formulated so those processors that adopt these quality standards can have a market advantage. This is also necessary for protecting consumer health due to the known carcinogenicity of aflatoxins. A review of existing regulations should be requested by the industry to BFAD and the forthcoming BAFPS.

Promoting Quality

Peanut processors should be encouraged to upgrade product quality and industry practices. An accreditation program for peanut processors could be linked to the existing government program for the accreditation of food exporters. Establishing an accreditation program for farmers producing aflatoxin free nuts might also be effective in controlling this problem. Conducting regular seminars on modern methods of quality control, plant sanitation, regulations of export markets and new processing technologies will help upgrade manufacturing practices.

Over the long term, when government and industry are both ready, mutual recognition agreements for peanut exports with major trading partners, as the United States could be established to facilitate trade in peanut products.

Strengthening Market Information

Market missions carried out by the GA-HVCCP of the DA should lead to descriptive information on marketable peanut products and recommendations on how these can be achieved by existing products in the market.

Developing other Policies for Enhancing Peanut Exports

Policies for addressing problems that make food exports non-competitive as appropriate packaging, availability of appropriate processing equipment, and transport costs should be formulated.

Table 3.3 A proposed workplan for product and market development for the peanut industry

Objectives	Activities
<p>1. To strengthen industry capability to access the market.</p>	<ul style="list-style-type: none"> • Product development and optimization to meet market needs in the Philippines and abroad. Integration of Peanut CRSP Collaborative R&D with the industry. • R&D on increased availability of peanuts of the right quality, volume and price: Continue to support the Integrated Peanut Research and Development Program of the Department of Agriculture (DA) to raise production, yields and farm productivity. • Match production needs with requirements of food processors: Strengthen communication through farmer-industry-government clubs organized by the Department of Agriculture/ Agribusiness Department. • Strengthen market information and promotion of peanut products through the Department of Trade and Industry and the DA. Prepare a study on making available appropriate packaging and processing equipment for peanuts for export.
<p>2. To lower the barriers to entry of Philippine Peanut Products into the export market.</p>	<ul style="list-style-type: none"> • Formulate quality and safety standards for peanuts. Industry should request BFAD and the forthcoming BAFPS to draft regulations that will accomplish the following: <ol style="list-style-type: none"> a. set levels for allowable aflatoxin in peanuts b. allow nutrient fortification of peanut products c. recognize grading and accreditation systems for product quality and plant sanitation • Implement an accreditation program for peanut processors and peanut farmers. • Study the feasibility of establishing Mutual Recognition Agreements with countries exporting peanuts to the Philippines and those importing peanut products from our country. • Implement training courses on market regulations and standards for peanut exporters.

CONCLUSION

The study conducted resulted in the identification and evaluation of the impact of government programs/projects on peanut production, processing and marketing. Government programs/projects were analyzed and needed policies for encouraging peanut production and processing were identified to provide information on the status and weaknesses of existing trade and agricultural policies and programs/projects that directly or indirectly impact on peanut production and processing.

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CHAPTER 4

REPORT OF AN INDUSTRY WORKSHOP AND GOVERNMENT SEMINAR

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ABSTRACT

A workshop on technical and policy issues for strengthening the market for peanuts was conducted on June 3, 1998 and attended by forty-seven participants from the government and private sectors. Private sector participants were represented by twelve peanut processors and those from the government sector came from thirteen government agencies and institutions. The workshop covered six topics as follows: 1) Introduction on the Peanut Collaborative Research Support Program, 2) Government Program for Agribusiness Investment, 3) Prevailing Government Programs and Policies on Peanut Production and Marketing, 4) Statistics of the Peanut Industry: Production, Imports and Exports, and Profile of Peanut Industries, 5) Problems of Peanut Processors, and 6) Results of the Survey on the Technical Issues and Constraints of Peanut Processors. The highlight of the workshop was an open forum.

OBJECTIVES

Workshop was conducted to communicate to peanut manufacturers the opportunity to collaborate with government, educational institutions and the University of Georgia on technologies to expand markets for peanuts, and to other government agencies of the existence of a program for product and market development, R&D on peanuts and the need for collaboration to attain the objectives of the Gintong Ani-High Value Commercial Crops Program (GA-HVCCP) for peanuts. In addition, objectives of this workshop were to verify the technical constraints encountered by peanut manufacturers in the processing of peanut products and policy constraints in the expansion of the market for peanut and peanut products, and to identify working arrangements, so that government programs on peanuts respond to the needs of all stakeholders: the farmers, processors and consumer, industry collaborators for peanut product development, and peanut products to be optimized and developed.

Results of the industry survey on technical constraints and industry problems and government programs and policies on peanut and peanut products were presented to workshop participants who represent the government sector and peanut processor. Technical constraints and industry problems were verified from peanut manufacturers while government programs and policies were verified from implementing agencies.

METHODS

Prior to the conduct of the workshop, invitations were sent out to peanut processors and government agencies directly involved in the implementation of programs and policies that would expand the market for peanut products. Invitations were likewise sent to resource speakers. A week after the invitations were sent, follow-up calls were made to confirm the number and names of participants who will be attending the workshop.

A total of forty-seven (47) participants attended the workshop on Technical and Policy issues Related to Strengthening the Market for Peanuts. Out of this number, seventeen (17) came from the private sector, eleven of which were from the Metro Manila area and one (1) from Baguio City in Northern Luzon. The workshop was attended by representatives from thirteen (13) government agencies and institutions. The lists of participants are shown in Table 4.1.

The workshop had guest lecturers representatives from the government sector and private sector. The government sector was represented by Director Carolina Batallones of the Agribusiness Investigation and Information Service (AIIS), Department of Agriculture, Dr. Alicia O. Lustre of the Food Development Center and Dr. Flor C.F. Galvez, of the University of the Philippines. The private sector, on the otherhand was represented by Mr. Kim Lapuz of Marigold Commodities, Inc. The programme of the workshop is shown in Appendix H.

RESULTS

Director Carolina Batallones of the Department of Agriculture discussed the current programs of the government particularly the Gintong Ani- Program for High Value Commercial Crops (GA-HVCC), the flagship program of the government on agricultural development. Discussed were the goals, objectives, components and challenges and opportunities of the GA-HVCCP.

The GA-HVCC Program is market directed, meaning the targets are expressed in market parameters such as level of agribusiness investments, volume of financing and credit flows, among others instead of targets based on trees planted and hectares. She likewise mentioned that specific commodities such as peanut will be used as a reference for identifying technology and in turn is the focus of technology transfer assistance and investment incentives. These commodity flows will then show the product and byproduct utilization potentials according to market. In as much as these activities will require industry participation, she invited industry participants to become a member of a Commodity Action Team (CAT) for peanuts that AIIS intends to set up. Mr. Andres Go of TOBI and Mr. Kim Lapuz of Marigold Food Commodities volunteered to become a member of the CAT in behalf of the peanut manufacturers.

Prevailing Government Programs on Peanut Production and Marketing was discussed by Dr. Alicia O. Lustre, FDC Director and Principal Investigator of Peanut CRSP. Dr. Lustre discussed four (4) government programs and three (3) regulations related to peanuts (see Chapter 3). Likewise discussed were observations and concerns regarding the above programs and policies as follows: 1) That government programs for peanuts pay little attention to product development, 2) That there are no organized linkages between the cooperatives and farmers in the program, with commercial manufacturers, and 3) The lack of standards for aflatoxin, a potent carcinogen and common contaminant in peanuts. In addition to above, Dr. Lustre likewise gave recommendations for the development of markets and for removing barriers to market entry for peanuts. The Workplan for product and market development for the peanut industry is presented as Appendix I.

The Statistics on the Peanut Industry was presented by Dr. Flor Crisanta F. Galvez, Chairman of the Department of Food Science, University of the Philippines and Co-investigator of the Peanut CRSP. Dr. Galvez reported on the total number of peanut traders and manufacturers as well as the volume of peanut and peanut product importation and exportations of the Philippines.

Results of the Survey on the Technical Constraints of Peanut Manufacturers (see Chapter 2) were presented by Dr. Alicia O. Lustre. Discussed were: 1) The business profile of peanut manufacturers, 2) Technical profile of peanut manufacturers, 3) Constraints to manufacturing such as raw material supply, product quality, marketing and manpower, 4) Importance of technical problems in relation to other problems and 5) Areas for government support. Dr. Lustre likewise thanked the companies who responded to the questionnaires and invited companies to become industry collaborators to the Peanut CRSP.

Likewise presented were the following conclusions: 1) The major constraint to market expansion was the unavailability of local peanuts and its high price, 2) The major technical problems were non-uniform sizing and mold infection of raw peanuts, lack of consistency in product quality, specific problems on oil separation, rancidity and aflatoxin contamination, cost

reduction, availability of appropriate equipment, technology and packaging, training of manpower, shelf life and knowledge of market standards, 3) Government support in order of importance were the following: Making peanut farmers more productive, providing new technologies, providing training courses, establishing and enforcement of product standards, providing laboratories for testing and making packaging materials more available especially to small processors.

The Peanut Collaborative Research Support Program (Peanut CRSP) was introduced by Mr. Alberto Cariso, Chief of the Industry Liaison Services Division of FDC. Discussed were the origin of the program, project priorities, goals, and participating institutions.

Problems of peanut processors were discussed by Mr. Kim Lapuz, Manager of Marigold Food Commodities Inc. According to Mr. Lapuz, the problem commonly encountered by peanut processors were raw material sourcing, aflatoxin control and consistency of product quality.

An open forum was held for questions, suggestions and other matters for clarification.

Issues Raised During the Workshop

Director Batallones of DA clarified the source of the list of peanut manufacturers and traders presented by Dr. Galvez. Apparently, the number of traders and manufacturers in certain regions were more than what was reported. Ms. Carmina Parce of BFAD likewise commented that one of the reasons for the lack of listing is that some processors may be manufacturers of other products and as such may have been listed in other product categories. It was suggested that a list should be obtained from the regional/provincial offices of the Department of Trade and Industry as they might have a complete listing of establishments in their area.

Another issue raised was the basis for the classification of business establishments used in the survey. It was recommended that the basis used by DTI for classification should be adopted to avoid confusion.

The problem on the high price of raw peanut was another issue raised. Mr. Go mentioned that one of the reasons for the high cost of peanuts is the lack of feeder roads and transport system to bring farm produce to the market. Another factor that contributes to high price is the presence of several middlemen who act as traders for the farmers. It was suggested that there should be a benchmark to give an indication on the price of raw peanuts which both processors and producers can use as basis. Another suggestion made was to increase seed growers association to assure supply of seeds used for planting.

CONCLUSION

The workshop resulted in creating awareness among peanut manufacturers on existing government programs and policies on peanut products. The workshop likewise resulted in the identification of technical problems and constraints encountered by peanut processors in the processing of peanut products. The workshop resulted in the attendance of forty-seven participants from both government and private sectors and in the verification of problems of the peanut industry. Likewise, this resulted in the identification of industry collaborators and research projects under Peanut CRSP.

Table 4.1 List of participants, workshop on technical and policy issues for strengthening the market for peanuts

Name and Position of Participants (Private Sector)	Company Name/Address
1. Judylyn S. Backong <i>Assistant Supervisor</i>	Mountain Maid Training Center Baguio City
2. Kim.R. Lapuz <i>Manager</i>	Marigold Food Commodities San Juan, Metro Manila Tel No. 724-9415 Fax No. 723-5063
3. Ramon R. Reyes	Marigold Food Commodities San Juan, Metro Manila Tel No. 724-9415 Fax No. 723-5063
4. Remy A. Cccaspe <i>Project Coordinator</i>	Karexx International Inc. #2 Silver Road, Caloocan City Tel. No. 939-6076 Fax No. 938-9165
5. Ramon T. Pua <i>General Manager</i>	Newborn Food Products Inc Makati, Metro Manila Tel. No. 843-1005
6. Anna Restituto <i>Sr. Food Tech</i>	TSB Enterprises Tandang Sora, Quezon City Tel. No. 932-8063 Fax. No. 932-8064
7. Tommy Romualdo <i>President</i>	TSB Enterprises Tandang Sora, Quezon City Tel. No. 932-8063 Fax. No. 932-8064
8. Gabriel Gordon	Gordon Enterprises Food Terminal Inc. Complex (FTI), Taguig, Metro Manila Tel. No. 838-4921
9. Zenaida Gordon	Gordon Enterprises FTI Complex, Taguig, Metro Manila Tel. No. 838-4921
10. Andres Go <i>General Manager</i>	TOBI Sucat, Parañaque Tel. No. 825-25-64 Fax No. 829-33-20
11. Ronnie Flores <i>Sr. Process Dev. Supervisor</i>	California Manufacturing Corporation Parañaque, Metro Manila Tel. No. 838-8675 Fax No. 838-86-76

Table 4.1 *continued...*

Name and Position of Participants (Private Sector)	Company Name/Address
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13. Nelia D. Ison <i>Chemist</i>	Goldilocks Shaw Blvd., Mandaluyong City Tel No. 532-40-50 local 218
14. Nora de Leon <i>Technical Director</i>	California Manufacturing Corporation Parañaque, Metro Manila Tel. No. 838-8675 Fax No. 838-8676
15. Myrna P. Fajardo <i>R&D</i>	GFI Enterprises, Inc Karuhatan, Valenzuela Tel No. 291-55-39 Fax No. 291-5542
16. Dorie Guzman <i>R&D</i>	Republic Flour Mills Pioneer St., Mandaluyong City Tel No. 631-8101 loc 7909 Fax No. 631-9283
17. Helen Pangilinan <i>Food Tech</i>	Newborn Food Products Inc Makati, Metro Manila Tel. No. 844-58-47

Name/Position of Participants (Government Sector)	Company Name/Address
1. Celia Soriano <i>PECON</i>	National Food Authority Baguio City Tel. No. 442-74-27 Fax No. 442-67-02
2. Adelaida C. Nuestro <i>Provincial Manager</i>	National Food Authority - Benguet Baguio City Tel. No. 442-74-27 Fax No. 442-67-02
3. Aurora V. Bernal <i>FDRO IV</i>	Bureau of Food and Drug Alabang, Muntinlupa Tel. No. 842-45-84 Fax No. 807-07-01
4. Carmina J. Parce <i>FDRO IV</i>	Bureau of Food and Drug Alabang, Muntinlupa Tel. No. 842-45-84 Fax No. 807-07-01

Table 4.1 *continued...*

Name/Position of Participants (Government Sector)	Company Name/Address
5. Digna L. Sandoval <i>BAR Res. Co ordinator</i>	Department of Agriculture- Bureau of Agricultural Research Diliman, Quezon City Telefax 920-97-90
6. Engie B. Santos <i>Supervising Ag.</i>	Department of Agriculture - Agriculture Information and Investment Service Diliman, Quezon City Tel. No. 920-4072
7. Renita M. Dela Cruz <i>Chief, Sc. Res. Specialist</i>	Bureau of Postharvest Research Extension Munoz, Nueva Ecija Tel. No. 456-0213
8. Danilo B. Tumamao <i>Center Chief</i>	Department of Agriculture – CVIARC Ilagan, Isabela Tel. No. 0918- 2160633
9. Clarito M. Barron <i>OIC, Crop Production Division</i>	Bureau of Plant Industry Malate, Manila Tel. No. 525-7313
10. Coni G. Cutay <i>Science Research Specialist</i>	Philippine Council for Agriculture Forestry and Natural Resources Research and Development Los Banos, Laguna Tel. No. 536-0014/536-0015 Fax No. 536-0016
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12. Ricardo .R. Del Rosario <i>IFST</i>	University of the Philippines at Los Baños (UPLB), College, Laguna Tel. No. 536-2303
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Table 4.1 *continued...*

Name/Position of Participants (Government Sector)	Company Name/Address
17. Lydia O. Martinez <i>Consultant</i>	Department of Agriculture Diliman, Quezon City Tel. No. 926-9172 Fax No. 926-9172
18. Victoira B. Laurel <i>IPB UPLB</i>	Natural Science Institute UPLB Tel No. 49-536-2298
19. Remedios M. Abilay <i>Res. Assoc.</i>	Institute of Plant Breeding UPLB Tel No. 49-536-2298
20. Myra B. Moral <i>P. Researcher</i>	Foundation for Research Linkage and Development (FLRD) Food Terminal Inc., Taguig, Metro Manila Tel No. 838-4549
21. Ceccile Ventura <i>TIDA</i>	Bureau of Export Trade Promotion Department of Trade and Industry Makati City Tel. No. 8900-4643
22. Erlinda P. Sevilla <i>Chief</i>	Bureau of Plant Industry National Seed Quality Control Visayas Avenue, Quezon City Tel. No. 524-0968
23. Nancy Vendiola <i>Assistant</i>	University of the Philippines Diliman, Quezon City Tel. No. 920-5301
24. Lutgarda Palomar <i>Professor</i>	Leyte State University Baybay, Leyte Tel. No. 053-335-2725 Fax No. 053-327-621
25. Alberto R. Cariso <i>Chief, Industry Liaison Service</i>	Food Development Center FTI Complex, Taguig, Metro Manila Tel. No. 838-4014
26. Gertrude M. Agustin <i>Supervising Research Specialist</i>	Food Development Center FTI Complex, Taguig, Metro Manila Tel. No. 838-4014
27. Dr. Flor Crisanta F. Galvez <i>Chairman, Dept. of Food Science</i>	College of Home Economics University of the Philippines Tel No. 920-5301
28. Dr. Alicia O. Lustre <i>Director</i>	Food Development Center FTI Complex, Taguig, Metro Manila Tel. No. 838-4014

APPENDIX A

LETTER TO DR. KINTANAR – BFAD DIRECTOR



KOLEHIYO NG EKONOMIYANG PANTAHANAN
COLLEGE OF HOME ECONOMICS
UNIBERSIDAD NG PILIPINAS DILIMAN
 UNIVERSITY OF THE PHILIPPINES DILIMAN
 QUEZON CITY, PHILIPPINES 1101

April 7, 1998

Dr. Quintin Kintanar
 Director, Food & Drug Administration
 BFAD, Muntinlupa

OFFICE OF THE DIRECTOR
 Bureau of Food and Drugs

Ref. # 7803

Sumalin

RECEIVED

4/7/98
 Date

Dear Sir:

Good day! I am a researcher from U.P.-Diliman and part of a study concerning the needs of the local peanut manufacturers. The project is entitled "Peanut Collaborative Research Support Program," with the aim of addressing the industry's needs and disseminating technical knowledge to improve the quality of their product and competitiveness in the market.

Disseminating knowledge to these peanut manufacturers within the country (provincial and NCR) is an integral aspect of the study. We would need to contact companies to assess and conduct workshops that address their specific needs. In this relation, may we request for a listing of active peanut manufacturers, including their address, processed peanut products and telephone/fax numbers. If it would be too much trouble, then verification of the companies attached on the next page would also be appreciated.

Thank you very much for your support. Our contact number is Fax/Phone: 926-1449 or E-mail: fgalvez@che.upd.edu.ph

Sincerely yours,

FC Galvez
 Flor Crisanta F. Galvez, Ph.D.
 Project Leader/F&SN Department Chairman
 College of Home Economics
 U.P. Diliman

Received copy
Nancy S. Ventura

BFAD DIVISION-II

REC

DATE 4/7/98

The following are the list of companies within NCR to be verified:

1. Agribee Management Corporation
2. Cenmaco, Incorporated
3. Esperanza Marketing
4. Ever Peanut Food Products
5. Fenor
6. Giron Foods
7. Hillsboro Food
8. Isabela Growers Trading & Management Consultancy Inc.
9. L. Domelita & Sons Food Industries
10. Milky Way Enterprises Corp.
11. MGS Food Products
12. Natalies Peanut
13. Noble Wright Business Industries, Corp.
14. Northern Luzon Candy Company
15. Rodzon's Marketing Corp.
16. Rotico Products
17. Saliwan Trading

Thank you very much for your time.

The following are the list of companies to be verified:

REGION IV

1. Giron Foods
2. Sandoval's Coco Jam

REGION VII

3. Cebu's el Gusto
4. Lola Pureza's Inc.

REGION X

5. J & A Turrone
6. Grace Peanut Delights
7. La Montana Farm

SOUTHERN MINDANAO

8. Lotus Food Products

REGION XII

9. 4H Homemade Delicacies
10. Chedengs Peanut Food Processing

Thank you very much for your time.

APPENDIX B

LETTER TO ATTY. ARAO-MAHIWO – BTRCP DIRECTOR



KOLEHIYO NG EKONOMIYANG PANTAHANAN

COLLEGE OF HOME ECONOMICS
UNIBERSIDAD NG PILIPINAS DILIMAN
UNIVERSITY OF THE PHILIPPINES DILIMAN
QUEZON CITY, PHILIPPINES 1101

37

April 3, 1998

Atty. Ma. Teresa Arao-Mahiwo
Director, BTRCP
2/F DTI Bldg.,
361 Gil Puyat Ave., Makati



Dear Madam:

Good day! I am a researcher from U.P.-Diliman and part of a study concerning the needs of the local peanut manufacturers. The project is entitled "Peanut Collaborative Research Support Program," with the aim of addressing the industry's needs and disseminating technical knowledge to improve the quality of their product and competitiveness in the market.

Disseminating knowledge to these peanut manufacturers in the provinces is an integral aspect of the study. We would need to contact companies to assess and conduct workshops that address their specific needs. In this relation, may we request for a listing of active peanut manufacturers, including their address, processed peanut products and telephone/fax numbers. If it would be too much trouble, then verification of the companies attached on the next page would also be appreciated.

Thank you very much for your support. Our contact number is Fax/Phone: 926-1449 or E-mail: fgalvez@che.upd.edu.ph

Sincerely yours,

Flor Crisanta F. Galvez
Flor Crisanta F. Galvez Ph.D.
Project Leader/FSN Department Chairman
College of Home Economics
U.P. Diliman

1998A
105-48

The following are the list of companies to be verified:

REGION IV

1. Giron Foods
2. Sandoval's Coco Jam

REGION VII

3. Cebu's el Gusto
4. Lola Pureza's Inc.

REGION X

5. J & A Turrone
6. Grace Peanut Delights
7. La Montana Farm

SOUTHERN MINDANAO

8. Lotus Food Products

REGION XII

9. 4H Homemade Delicacies
10. Chedengs Peanut Food Processing

Thank you very much for your time.

APPENDIX C

LETTER TO MS. ENECIO –DTI-NCR DIRECTOR



KOLEHIYO NG EKONOMIYANG PANTAHANAN
COLLEGE OF HOME ECONOMICS
UNIBERSIDAD NG PILIPINAS DILIMAN
UNIVERSITY OF THE PHILIPPINES DILIMAN
QUEZON CITY, PHILIPPINES 1101

39

April 3, 1998



Ms. Luwina S. Enecio
Director, DTI-NCR
3rd/F, Oppan Bldg.,
349 Gil Puyat Ave., Makati

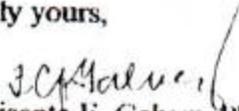
Dear Madam:

Good day! I am a researcher from U.P.-Diliman and part of a study concerning the needs of the local peanut manufacturers. The project is entitled "Peanut Collaborative Research Support Program," with the aim of addressing the industry's needs and disseminating technical knowledge to improve the quality of their product and competitiveness in the market.

Disseminating knowledge to these peanut manufacturers within the National Capital Region (NCR) is an integral aspect of the study. We would need to contact companies to assess and conduct workshops that address their specific needs. In this relation, may we request for a listing of active peanut manufacturers, including their address, processed peanut products and telephone/fax numbers. If it would be too much trouble, then verification of the companies attached on the next page would also be appreciated.

Thank you very much for your support. Our contact number is Fax/Phone: 926-1449 or E-mail: fgalvez@che.upd.edu.ph

Sincerely yours,


Flor Crisanta F. Galvez, Ph.D.
Project Leader/FSN Department Chairman
College of Home Economics
U.P. Diliman

The following are the list of companies within NCR to be verified:

1. Agribee Management Corporation
2. Cenmaco, Incorporated
3. Esperanza Marketing
4. Ever Peanut Food Products
5. Fenor
6. Giron Foods
7. Hillsboro Food
8. Isabela Growers Trading & Management Consultancy Inc.
9. L. Domelita & Sons Food Industries
10. Milky Way Enterprises Corp.
11. MGS Food Products
12. Natalies Peanut
13. Noble Wright Business Industries, Corp.
14. Northern Luzon Candy Company
15. Rodzon's Marketing Corp.
16. Rotico Products
17. Saliwan Trading

Thank you very much for your time.

APPENDIX D

LIST OF PEANUT MANUFACTURERS FROM BFAD

List of Peanut Manufacturers from BFAD

Name of Establishment	Address	City Province	Products
1. A & G Food Products	145 7 th St., Countryside Village, Sta. Lucia	Pasig	Peanut butter
2. ADR Food Products	292 Aquardients St., Sta. Monica, Novaliches	Quezon City	Peanut butter and nutri- candy
3. Astir Philippines, Inc.	215 Mons St.	San Juan	Peanut butter
4. B & R Manufacturing Corporation	Edsa cor. Rochester St.	Mandaluyong City	Peanut butter
5. Cula's Mini Factory	6364 M. H. del Pilar St.	Parañaque	Peanut butter
6. Ernie's Food Products	86 Katatagan St., Muzon	Malabon	Peanut butter
7. Hancock Foods Manufacturing	252 Benedictine St., Sun Valley	Parañaque	Peanut butter, coco jam, kare-kare mix
8. J. MA Belinda Food Products	179 M. H. Del Pilar St., Palatiw	Pasig	Peanut butter
9. JM3 Enterprises	262 J. P. Rizal, Project 4	Quezon City	Peanut butter, adobo peanut
10. Johnson Food Manufacturing	215 Fresno St.	Pasay City	Peanut butter
11. Kimlee Food Products	163 Skylark St., Strip 70 Village, Concepcion	Marikina	Peanut butter
12. N. Ramos Food Products	152-B Kaunlaran St., Muzon	Malabon	Peanut butter
13. Newborn Food Products, Inc.	2442 Arsonbal St.	Makati	Peanut butter
14. Polton's Food Products	120 Kagitingan St., Muzon	Malabon	Peanut butter

Name of Establishment	Address	City Province	Products
15. Preferred Home Specialties, Inc.	K-2 J. Y. & Sons Compound	Taguig	Peanut butter
16. R & D Ramos food Products	152 A. Kaunlaran St., Muzon	Malabon	Peanut butter
17. Sagana Food Products	369 Tandang Sora St.	Quezon City	Peanut butter
18. Samuya Food Manufacturing, Inc.	2451 Lakandula Ext., Hidalgo Village	Pasay City	Peanut butter, coco jam
19. San Felipe Food Products	7 G. MIA Road Interior	Parañaque	Peanut butter, coated peanut
20. Sociego Food Manufacturing Corporation	18 Mejorada St., Tinajeros	Malabon	Vinegar, tamarind sauce, lechon sauce, chili garlic, patis, seasoning
21. SWC Food Manufacturing Co.	41 C. Rincon St., Malinta	Valenzuela	Peanut butter
22. Tiongson Food Products	225 Gen. Luna St.	Malabon	Peanut butter
23. Twin Brother Trading & Food Products	1 Luna I St., San Agustin	Malabon	Peanut butter

Name of Establishment	Address	City/Province
A. R. FOODMAKERS PHILS.	270 Los Angeles St., Brookside Hills, Cainta	Rizal
ALING MELY'S FRIED CORN AND PEANUTS	Poblacion, Bustos	Bulacan
ALLIES WONDER PRODUCT	San Fernando	Pampanga
AMIE'S COTTAGE INDUSTRY	Hill Top	Batangas City
ANDRES CASOY DEALER	Cuyo	Palawan
ANDRES HOME MADE PRODUCTS	Jubay, Lilo-an	Cebu
ANGELES COCO JAM	Bliss Site, San Jose	Batangas
ANNIE'S COUNTER (FOOD PROCESSING DIV.)	L9 Tres de Abril, Labangon	Cebu City
ATSON COCO INC.	Km. 84, Maharlika Hi-way	San Pablo City
B.M. GIRON ENTERPRISES	110 M. H. del Pilar St., Silang	Cavite
BANDONG'S COCO JAM	690 San Juan St., Cainta	Rizal
BANYAN TREE AGRI-PRODUCTS	Brgy. San Jose	Tagaytay City
BEL'S FOOD PRODUCTS	Sto. Nino, Cainta	Rizal
BENDANA BROWN PIZARRO & ASSO., INC.	Bo. Sampaloc, Tanay	Rizal
BLUE BAR COCONUT PHILIPPINES, INC.	Bo. Lucasan, Tiaong	Quezon
CARMELITA TOASTED CASHEW NUTS	Antipolo	Rizal
CAROL ALVAREZ PEANUT KISSES FACTORY	Graham Ave. Bo-oy	Tagbilaran City

Name of Establishment	Address	City/Province
CEBU JOY FOODS	195 Tres de Abril	Cebu City
CEBU'S EL GUSTO	Tenaza Subd., Mabolo	Cebu City
CHEADING'S PEANUT FOOD PROCESSING	Sabayle st.	Iligan City
COCO GOLD MANUFACTURING INDUSTRIES INC.	Talairon	Oroquieta city
COCO MANILA FOOD CORPORATION	Bo. Oogong, Sta. Cruz	Laguna
CONNIE'S HOMEMADE PRODUCTS	Gen. Prim East, Bangar	La Union
CRISMAR FOOD PRODUCTS	79 San Juan St., Calamba	Laguna
CRISPY FOOD PRODUCTS	Aurora St., Koronadal	South Cotabato
CROWN FOOD PROCESSING, PASTRIES & BAKESHOP (COFFEE GRINDER)	Mercado St.	Zamboanga City
DE SUERTE FOOD PRODUCTS	Tipolo	Mandaue City
DIODEE'S SALTED CORN & PEANUTS	St. Gabriel Koronadal	South Cotabato
DIONA'S PEANUT PRODUCTS	Mobod	Oroquieta City
DITA'S FOOD PRODUCTS	407 San Nicolas, Bacoor	Cavite
DONNA'S PEANUT KISSES	Lindaville	Tagbilaran City
EDSEL MORATO PILI SWEETS	Mckinley St., Calzada, Ligao	Albay
ELLEN'S PEANUT BUTTER	Tamayo, Sta. Cruz	Marinduque
ERLY'S COCO JAM PRODUCTS	Cainta	Rizal

Name of Establishment	Address	City/Province
ERLYVON GINTONG SIKAP FOOD PRODUCTS	Bo. Bolo, Bauan	Batangas
ESTHER'S PEANUT BRITTLE	Poblacion, Tuba	Benguet
FIA'S FOOD PRODUCTS	46 Hicban Subd., Lagao	General Santos City
FIESTA BRANDS INC.	Medina	Misamis Oriental
FRANKLIN BAKER CO. OF THE PHIL. BRANCH	Sta. Cruz	Davao Del Sur
FRANKLIN BAKER CO. OF THE PHILS.	San Pablo	San Pablo City
GARITS PENIATO AND PEANUT PRODUCTS	Nonoc, Larena	Siquijor
GONGORA FOOD PRODUCTS	550 De Canienta St., Cainta	Rizal
GRACE- MAE FOOD PRODUCTS	Tagnipa, Maasin, Southern Leyte	Leyte
GREGHERS FOOD PRODUCTS	34 M.H. del Pilar St., Cainta	Rizal
HERMITA'S FOOD PRODUCTS	Taban, Libmanan	Camarines Sur
HOME MADE PEANUT PRODUCTS	170-B Cabato St., Tetilan	Zamboanga City
IDEAL HOMEMADE FOOD PRODUCTS	Brgy. Kaingin, La Paz	Iloilo City
JASMINE HOMEMADE PEANUT BUTTER	Tamayo, Sta. Cruz	Marinduque
JEN-JENG FOOD PRODUCTS	San Pedro, Bustos	Bulacan

Name of Establishment	Address	City/Province
JENISE FOOD PRODUCTS	150-E A. Lopez St.	Cebu city
JERLENMEL TRADING	654 Subangdaku	Mandaue City
JHUN'S PEANUT BUTTER HOME MADE	Sta. Cruz, Sta Maria	Bulacan
JOEMAR'S FOOD PRODUCTS	2065 Linao, Talisay	Cebu
JONYLENE PEANUT BUTTER & OTHERS	244 Burgos St., La Paz	Iloilo City
JULIETS FOOD PRODUCTS	Pob. Bustos	Bulacan
JUNAR'S FOOD PRODUCTS	Cuyo	Palawan
K.E. MANUFACTURING (BRANCH)	195 Anos St., Los Banos	Laguna
KANJI FOOD PRODUCT	Km. 20 Ortigas Ave., Cainta	Rizal
KASILAG FOOD PRODUCTS	Bo. Bawi, Padre Garcia	Batangas
KENICHI'S GENERAL MERCHANDISE	Blk. 5, Lot 5, Phase II, Ecotrend Subd., San Nicol	Cavite
KIRKS ENTERPRISES	35 Ledesma St.	Iloilo city
LIBRAS SOL PEANUTS	Purok 13, Saray	Iligan City
LOTUS FOOD PRODUCTS	Watosi, Buhangin	Davao City
LUCENA DESSICATED COCONUT PRODUCTS INC.	Ibabang Dupay	Lucena City
LUCY'S FOOD PRODUCTS	35 San Miguel St. Skyline	Davao City
LYDIA'S PEANUT BUTTER & CANDY FACTORY	Barcelona Ext.	Lucena City
M.M. NATA DE COCO	Malvar	Batangas
M.C.J. ENTERPRISES	M. Santos Ext. Antipolo	Rizal

Name of Establishment	Address	City/Province
M.W. FOOD PRODUCTS	San Jose dela Montana- C Mabolo	Cebu City
MAGALANG VARIETY HOMEMADE FOOD PRODUCT	Jardin, Culion	Palawan
MARAVILLAS PILI NUT CANDY MAKER	Salugan, Camalig	Albay
MARCON FOOD ENTERPRISES	Calzada, Guinobatan	Albay
MARIA'S SUMAN & LATIK FACTORY	283 A. Mabini St., Cainta	Rizal
MASAGANA TOASTED CASHEW	Cuyo	Palawan
MC ANDAYA FOOD PRODUCT	LL J. P. Rizal St., Cainta	Rizal
MEDINA COCONUT PRODUCTS INC.	Medina	Misamis Oriental
MELY'S FOOD PROCESSING	32 J. Buenaviaje St., Cainta	Rizal
MM PEANUT BRITTLE	Zig Zag, Camp 7	Baguio City
MOBILE MARKETING ENTERPRISES	130 Gen. Satorre St., Imus	Cavite
MONALINDA CASOY INDUSTRY	Cuyo	Palawan
N.D.H. FOOD PRODUCTS	Iba, Silang	Cavite
NELVHEN PEANUT BRITTLE	San Antonio Village, Matina	Davao City
NEW MINDANAO CANDY FACTORY	Canelar, Moret	Zamboanga City
NEW SUN-RIPE COCONUT PRODUCTS INC.	Buenavista, Magdalena	Laguna

Name of Establishment	Address	City/Province
NINA'S HOME MEDE PEANUT BUTTER	San Agustin, Sta. Rita	Pampanga
NORIO'S FOOD PRODUCTS	32 Buenviaje St., Cainta	Rizal
ODRACIR ATISOR PEANUT PROCESSING INC.	Lazi	Siquijor
PACIFIC ROYAL BASIC FOODS INC.	Bo. Mangilag, Candelaria	Quezon
PAMPAGUENA GOOD PRODUCTS	Tambo, Hinaplanon	Iligan City
PEPAY PEANUT BUTTER AND GINGER POWDER MAKING	Carbide Village, Tubod	Iligan City
PERGEM PEANUT AND FOOD PRODUCTS	44 M.C. Briones St.	Cebu City
PETER PAUL PHILIPPINE CORP.	Cabunag St., Brgy. Pahinga, Candelaria	Quezon
PHILIPPINE COCO FOOD INDUSTRIES, INC	UFC Cmpd, Dumoy, Toril	Davao City
PHILIPPINE COCO FOOD INDUSTRIES INC.- DAVAO CITY BRANCH	UFC Compound, Dumoy, Toril	Davao City
POLLY MACAISA FOOD PRODUCT	Malvar	Batangas
PRIMEMOVER FOOD PRODUCTS	021 Mendoza St., Bancal, Cuyo	Palawan
PRIMEX COCO PRODUCTS INC.	Bo. Manguilag, Candelaria	Quezon
PRIZE INDUSTRIES INC.	Km 56 Nat'l Hi-way, Brgy. Makiling, Calamba	Laguna
RACHEL'S PEANUT BRITTLE	Tapuae Dist.	Dagupan City

Name of Establishment	Address	City/Province
RED V COCONUT LTD.	Medina	Misamis Oriental
RED V COCONUT PRODUCTS LTD.	Tolairon, Oroquieta	Misamis Occidental
REY SWEET PEANUT	Pansol, Padre Garcia	Batangas
RFM CORPORATION	Km. 56 Nat'l, Hi-way, Brgy. Makiling, Calamba	Laguna
RHODA FOOD PRODUCTS	Bugac, Ma-a	Davao City
ROMA NATIVE RICE CAKE	Samala Subd., Medicion 2 nd , Imus	Cavite
ROMEDEN'S WEETS	901 L. Jaena St., San Roque	Cavite City
ROSE DELICACIES	Noria, Palao	Iligan City
SANDOVAL'S COCO JAM	200 Cora St. Mariek Subd., Cainta	Rizal
SANTIAGO FOOD PRODUCTS	39 A. Bonifacio Ave., Cainta	Rizal
SARILIKHA FOOD PRODUCTS	Rawis, Virac	Catanduanes
SILVERSPoon FOOD PRODUCTS	251 San Agustin, Alaminos	Laguna
SIRAWAN FOOD CORP.	Sirawan, Toril	Davao City
SOLING'S PINIATO	Balintawak, Mambajo	Camiguin
SUPER STAR COCONUT PRODUCTS CO.	Bugac, Ma-a	Davao City
SUPERSTAR COCONUT PRODUCTS CO., INC.	Malabanban Norte, Candelaria	Quezon
TRIAD HOMEMADE PRODUCTS	Pob. San Jose	Batangas
TROPICANA FOOD PRODUCTS INC.	Km. 84 Maharlika Highway, San Francisco	San Pablo City

Name of Establishment	Address	City/Province
TYRONES HOMEMADE FOOD PRODUCTS	68-D Univille Banilad	Cebu City
URDUJA FOOD PRODUCTS INC.	Tapuac District	Dagupan City

APPENDIX E

RESPONSE OF DTI -NCR



Republic of the Philippines
DEPARTMENT OF TRADE AND INDUSTRY
 NATIONAL CAPITAL REGION
 3rd Floor, OPPEN Bldg., 349 Sen. Gil J. Puyat Avenue
 Makati City, PHILIPPINES 3117
 Tel. Nos. 8905674 • 8905485 • 8958339 • Fax No. 8905512



CERTIFICATION

TO WHOM IT MAY CONCERN:

This is to certify that available records of this Office do not show the registration of:

- 1. AGRIBEE MGT. CORP.
- 2. EVER PEANUT FOOD PRODUCTS
- 3. FENOR
- 4. GIRON FOODS
- 5. HILLSBORO FOOD
- 6. ISABELA GROWERS TRDG. & MGT. CONSULTANCY INC.
- 7. L. DOMELITA & SONS FOOD INDUSTRIES
- 8. NATALIES PEANUT
- 9. NOBLE WRIGHT BUSINESS INDUSTRIES CORP.
- 10. NORTHERN LUZON CANDY CO.
- 11. RODZON'S MARKETING CORP.
- 12. ROTICO PRODUCTS
- 13. SALIWAN TRADING
- XXXXXXXXXXXXXXXX

under Act No.3883, as amended, otherwise known as the Business Name Law.

However, due to the transition of the registration process from manual to computerization certain records were inadvertently deleted from the files. In view of the same, reconstruction of deleted records is periodically conducted as evidence of its existence is presented or discovered.

This certification is therefore qualified by the foregoing constraint.

Done in Makati City, upon the written request of Ms. Flor Crisanta Galvez
 this 8th day of April, 1998.

Luwina S. Enecio
LUWINA S. ENECIO
 Regional Director

Republic of the Philippines
DEPARTMENT OF TRADE AND INDUSTRY
National Capital Region
361 Sen. Gil Puyat Ave
Makati City

TO : Miss. Flor Cruzante Galvez Ph. D.
ADDRESS : U.P. Diliman

Related to your letter-request for information of business name Cenmaco Inc. (Central Macaroni Co. Inc.)
hereunder are the pertinent data for your investigation purposes:

Date Registered 3/18/98 Reg. No. 98020645
Owner Cenmaco Inc. Tel. 70-49-55
Form of Ownership corp.
Business Address 512 Marianas Marcos St. San Juan, Man.
Line of Business exporter / wholesaler
Nationality PH. Capital 2,000,000.00
Date of Last Renewal _____

L. S. Encio
LWINA S. ENECIO
Director, DTI-NCR

Republic of the Philippines
DEPARTMENT OF TRADE AND INDUSTRY
National Capital Region
361 Sen. Gil Puyat Ave
Makati City

TO : ms. Flor Cruzante Galvez Ph. D.
ADDRESS : U.P. Diliman

Related to your letter-request for information of business name Reperanga Marketing
hereunder are the pertinent data for your investigation purposes:

Date Registered 7/23/96 Reg. No. 96061115
Owner Manita O. Lua
Form of Ownership single prop.
Business Address 17 Tabayoc St. Quezon City
Line of Business service
Nationality PH. Capital ₱50,763.64
Date of Last Renewal _____

L. S. Encio
LWINA S. ENECIO
Director, DTI-NCR

Republic of the Philippines
DEPARTMENT OF TRADE AND INDUSTRY
National Capital Region
361 Sen. Gil Puyat Ave
Makati City

50

TO : Ms. Flor Erisma Galang Ph. D.
ADDRESS : U.P. Belton

Related to your letter-request for information of business name Mulky Way Enterprises Corp.
hereunder are the pertinent data for your investigation purposes:

Date Registered 11/13/96 Reg. No. 96091081
Owner Mulky Way Int. Corp.
Form of Ownership corp.
Business Address JSA Kitanoad St., Quezon City
Line of Business wholesaler
Nationality Fi. Capital 10,000,000
Date of Last Renewal _____

for
LUMINA S. ENECIO
Director, DTI-NCR

Republic of the Philippines
DEPARTMENT OF TRADE AND INDUSTRY
National Capital Region
361 Sen. Gil Puyat Ave
Makati City

TO : Ms. Flor Erisma Galang Ph. D.
ADDRESS : U.P. Belton

Related to your letter-request for information of business name MGS Food Products
hereunder are the pertinent data for your investigation purposes:

Date Registered 3/4/93 Reg. No. 030541
Owner Placido E. Soto
Form of Ownership single prop.
Business Address 324 AMAS St - 80 mins *provincial* 03 0415
Line of Business retailer
Nationality Fi. Capital 200,000
Date of Last Renewal _____

for
LUMINA S. ENECIO
Director, DTI-NCR

APPENDIX F

LETTER TO THE INDUSTRY

Letter to the Industry

Dear Sir/Madam:

This is to seek your interest to participate in a collaborative research program for improving the quality and expanding the market for peanut products.

The program entitled the Peanut Collaborative Research Support Program (Peanut CRSP), is being implemented by the Food Development Center of the National Food Authority, Department of Agriculture, the University of the Philippines at Diliman and the Visayas State Agricultural College in Leyte. Technical support is provided by the University of Georgia in Atlanta, USA.

A program for 1998 is now under implementation and the participating industry collaborators have been chosen. We are seeking your interest to be part of our 1999 and future programs by giving this opportunity to know your technical needs better and to develop a mutually acceptable procedure for technical assistance.

This is therefore a request to schedule a meeting with you and if not feasible, to request you to provide basic information important to assessing your technical needs and manner to participation in the program. If interested, kindly do the following:

- a) Choose a schedule when we can get together at your plant or at the Food Development Center (see Table 1) and/or
- b) Accomplish the enclosed questionnaire (See Appendix G)

If you can establish links with us now, we would be in a better position to move this program in a manner that meets our mutual objectives in the development of the peanut industry in our country. The technical support of one of the leading institutions for peanut research in the US is certainly an advantage as well as the opportunity of linking our industry with the academe and the peanut development programs of the Department of Agriculture.

Dr. Flor Galvez of the University of the Philippines at Diliman or the undersigned will be present in the event you can confirm a meeting schedule at the dates proposed in the enclosed.

Thank you for your attention. We look forward to hearing from you.

Very truly yours,

DR. ALICIA O. LUSTRE
Director

APPENDIX G

QUESTIONNAIRE FOR INDUSTRY PARTICIPANTS

Questionnaire for Industry Participants

Peanut CRSP Program: Food Development Center, NFA, UP-Diliman, VISCA & The University of Georgia, Atlanta, Georgia, USA

Company Name: _____

Company Address : _____

1. Firm Identification

- a. Nature of Business: Manufacturing _____ Trading _____
- b. Years in Business: _____
- c. Business Classification:
- | | | | |
|-----------------------|-------|-------------------------|-------|
| Corporation | _____ | Partnership | _____ |
| Single Proprietorship | _____ | Others (Please specify) | _____ |
- d. When established: _____
- e. Size of Operation (by number of workers)
- | | | | |
|-------|------------------|---------|----------------|
| Large | _____ \geq 151 | Medium | _____ 26 - 150 |
| Small | _____ 6 - 25 | Cottage | _____ 0 - 5 |
- f. Products being manufactured other than peanuts (optional) _____
- g. Major markets for products
- | | |
|--------|-------|
| Local | _____ |
| Export | _____ |
| Both | _____ |

2. Raw Material (check any item that is applicable):

- a) Source of peanuts:
- | | |
|----------------|-------|
| Own Production | _____ |
| Farmers | _____ |
| Local Traders | _____ |
| Importers | _____ |
- b) Production source preference for peanut
- | | |
|--------------------------------------|-------|
| Name of province growing the peanut | _____ |
| Name of country supplying the peanut | _____ |
- c) Raw Material (Peanut) Problems
- Discolored _____
 - Moldy/with Aflatoxin _____
 - Small size/Size uniformity _____
 - Assurance of quality _____
 - Assurance of supply _____
 - High price _____
 - Others _____
- d) Advantages of local peanuts
- Good flavor _____
 - Good texture _____
 - Low purchasing risk _____
 - Others _____

3. Technical Problems (check any item that is applicable)

a) Problems with the product:

- Consistency of color _____
- Consistency of quality _____
- Oil separation _____
- Rancidity _____
- Aflatoxin _____
- Others _____

b) Problems in the operations

- Cost Reduction _____
- Appropriate equipment _____
- Training of Workers _____
- Training of Production Supervisors _____
- Availability of Manpower _____
- Availability of Packaging _____
- Cost of Packaging _____
- Others _____

c) Problems in Marketing/Storage:

- Deterioration in product quality _____
- Absence of aflatoxin _____
- Lack of knowledge of market standards _____
- Shelf life _____
- Others _____

d) Significance of Technical Problems in Relation to Other Industry Problems
Rank in order of importance, 1 as most important

- Technical problems _____
- Financial problems _____
- Manpower Quality _____
- Government Regulations _____
- Export Standards _____
- Raw Material Availability/
Quality _____
- Others (state and give rank) _____

4. Technology (check any item that is applicable)

a) Source of Technology

- Local Practices _____
- Local R&D Institutes _____
- Foreign Companies _____
- Skilled Personnel from
other companies _____
- Family tradition _____

b) Level of Technical Ability

- Develop new products _____
- Improves products all the time to reduce
cost and/or upgrade quality _____
- With manpower exclusively on peanuts
R&D _____
- Sends people to trainings yearly _____

- Analyzes product regularly for aflatoxin and other quality factors _____
- Applying/learning HACCP _____

5) Areas where Government Support is Sought:
Rank in order of Priority; 1 as most important

- | | Rank |
|-----------------------------------------------------------|-------|
| • Make peanuts of good quality available | _____ |
| • Make packaging materials available | _____ |
| • Reduce local peanut cost | _____ |
| • Provide manpower for training courses | _____ |
| • Provide laboratories for analyses | _____ |
| • Provide new technologies | _____ |
| • Establish and enforce products and production Standards | _____ |
| • None | _____ |
| • Others (state and give rank) | _____ |

Thank you.

Company Name

APPENDIX H

PROGRAMME

Programme

Workshop on Technical and Policy Issues for Strengthening the Market for Peanuts June 3, 1998

8:00 AM	REGISTRATION & COFFEE
9:00 AM	Welcome Remarks
9:10 AM	<u>Government Program for Agribusiness Investment</u> Director Carolina Batallones Agribusiness Investment and Information Service Department of Agriculture
9:30 AM	<u>Prevailing Government Programs on Peanuts</u> Dr. Alicia O. Lustre, Director, FDC Investigator, Peanut CRSP, Philippines
9:50 AM	COFFEE BREAK
10:10 am	<u>The Peanut Collaborative Research Support Program (Peanut CRSP)</u> Mr. Alberto R. Cariso, Division Chief, FDC Member, Peanut CRSP, Philippines
10:25 AM	<u>Statistics on the Peanut Industry: Production Imports and Exports and Profile of Peanut Industris</u> Dr. Flor C.F. Galvez Chairman, Department of Food Science University of the Philippines, Diliman Investigator, Peanut CRSP, Philippines
10:45 AM	<u>Problems of Peanut Processors</u> Mr. Kim Lapuz Manager, Marigold Food Commodities Peanut CRSP Collaborator
11:00 AM	<u>Technical Issues and Constraints of Peanut Processors-Results of a Survey by FDC, UP-Diliman and Visayas State College of Agriculture</u> Dr. Alicia O. Lustre
11:20 AM	<u>RECOMMENDATIONS AND OPEN DISCUSSIONS</u> Adoption of Product and Market Development Workplan for Peanuts Identification of Products to be Optimized Policy Recommendations for Industry Collaboration Identification of R&D Collaborators
12:00 PM	LUNCH
1:00 PM	Tour of FDC Facilities, Viewing of Peanut R&D at the FDC Pilot Plant
2:30 PM	Final Discussions and Drinks
2:50 PM	End of Workshop

APPENDIX I

WORKPLAN FOR PRODUCT AND MARKET DEVELOPMENT FOR THE PEANUT INDUSTRY

**Workplan for Product and Market Development
for the Peanut Industry**

**OBJECTIVE 1. TO STRENGTHEN INDUSTRY CAPABILITY TO TAP
MARKET OPPORTUNITIES**

ACTIVITIES:

1. **Product Development and Optimization** to Meet Market Needs in the Philippines and Abroad. Strategy: Collaborative R&D with the Industry
2. **R&D on increased availability of peanuts** of the right quality, volume and price: Strategy: Continue to support the Integrated Peanut Research and Development Program of the Department of Agriculture to raise production, yields and farm productivity.
3. **Match production needs with requirements of food processors**
Strategy: Strengthen communication through farmer-industry-government clubs organized by the Department of Agriculture/Agribusiness Department and FDC
4. **Strengthen market information and promotion** for peanut products through the Department of Trade and Industry. Strategy: Request DTI to quantify, specify and validate market information and to increase opportunities for buyer-supplier interaction on peanut products.
5. Prepare a **study on making available appropriate packaging and processing equipment** for peanuts for export. The prevailing problems on making appropriate packaging materials and processing equipment for processing of food products for export should be resolved.

TIMETABLE AND FUNDING REQUIREMENTS:

ACTIVITIES	START	FUNDING A CONSTRAINT?	
		YES	NO
1. Product Development and Optimization	On-going		X
2. R&D for Increased Availability of Peanuts	On-going		X
3. Formation of Farmer-industry-government Clubs			
4. Strengthen market information and promotion at DTI			
5. Study on making available, appropriate packaging and processing equipment for peanut products (DTI)		X	

OBJECTIVE 2: TO LOWER THE BARRIERS TO MARKET ENTRY OF PHILIPPINE PEANUT PRODUCTS

ACTIVITIES:

1. **Formulate quality and safety standards** for peanuts. Strategy: Industry to request BFAD and the forthcoming BAFPS to draft regulations that will accomplish the following:
 - set levels for allowable aflatoxin in peanuts equivalent to that of international standards
 - allow nutrient fortification of peanut products
 - recognize grading and accreditation systems for product quality and plant sanitation
2. **Implement an accreditation program** for peanut processors and peanut farmers
3. **Study the feasibility of establishing Mutual Recognition Agreements (MRA)** with food control agencies of countries exporting peanuts to the Philippines and importing peanut
4. **Implement training courses** on regulations and quality standards for peanut exporters.

TIMETABLE

ACTIVITY	STARTING DATE	FUNDING CONSTRAINT	
		YES	NO
1. Formulate standards	1998		X
2. Implement an Accreditation Program	1998		X
3. Study on MRA's	1998		X
4. Training on Regulations, sanitation and processing technologies	1999	X	