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9. ABSTRACT
 Several key factors affecting Philippine grain management in the New Society need to be recognized. The experience of coping with the severe rice shortages last fall have created renewed awareness of the importance of grain management, including corn and wheat products as well as rice. The sharp rise in prices of petroleum fuels and nitrogenous fertilizers has increased grain production costs significantly in the Philippines and around the world. Consumers are forced to spend larger percentage of their incomes for the staple foods. World reserves of grain stocks are at unprecedented lows. Higher priorities must be placed on minimizing waste and other losses, on efficient handling, processing and distribution, and on the management of storage stocks.

The long-term upward trend in total domestic rice and corn production barely has been able to keep up with the increasing household requirements. Average annual imports of rice, corn and wheat have had to be increased slightly over the past 20 years. The current all-out efforts to close the production gap are hampered by tight supplies of critical farm inputs, particularly fertilizers.

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ROCOMMENDATIONS FOR
IMPROVING PHILIPPINE GRAIN MARKETING
AND
PRICE STABILIZATION PROGRAMS

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RECOMMENDATIONS FOR IMPROVING PHILIPPINE
GRAIN MARKETING AND PRICE STABILIZATION
PROGRAMS

Dr. Richard Phillips

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I. INTRODUCTION

The general terms of reference and scope of work for this study and report are included in the accompanying memorandum to the writer from Dr. Frank W. Sheppard.

The report is the result of serious effort by many people, particularly those in the National Grains Authority, the National Council of Food and Agriculture and the Bureau of Agricultural Economics, Department of Agriculture, who worked closely with the consultant throughout the course of the study.

The writer is indebted to the National Grains Authority for the exceptional cooperation and support provided by everyone concerned, from Administrator Jesus T. Tanchanco to the secretarial staff. The extra effort provided by Deputy Administrator Robert E. Fronza, Director Francisco L. Tua and Miss Lucila G. Siwa is especially appreciated.

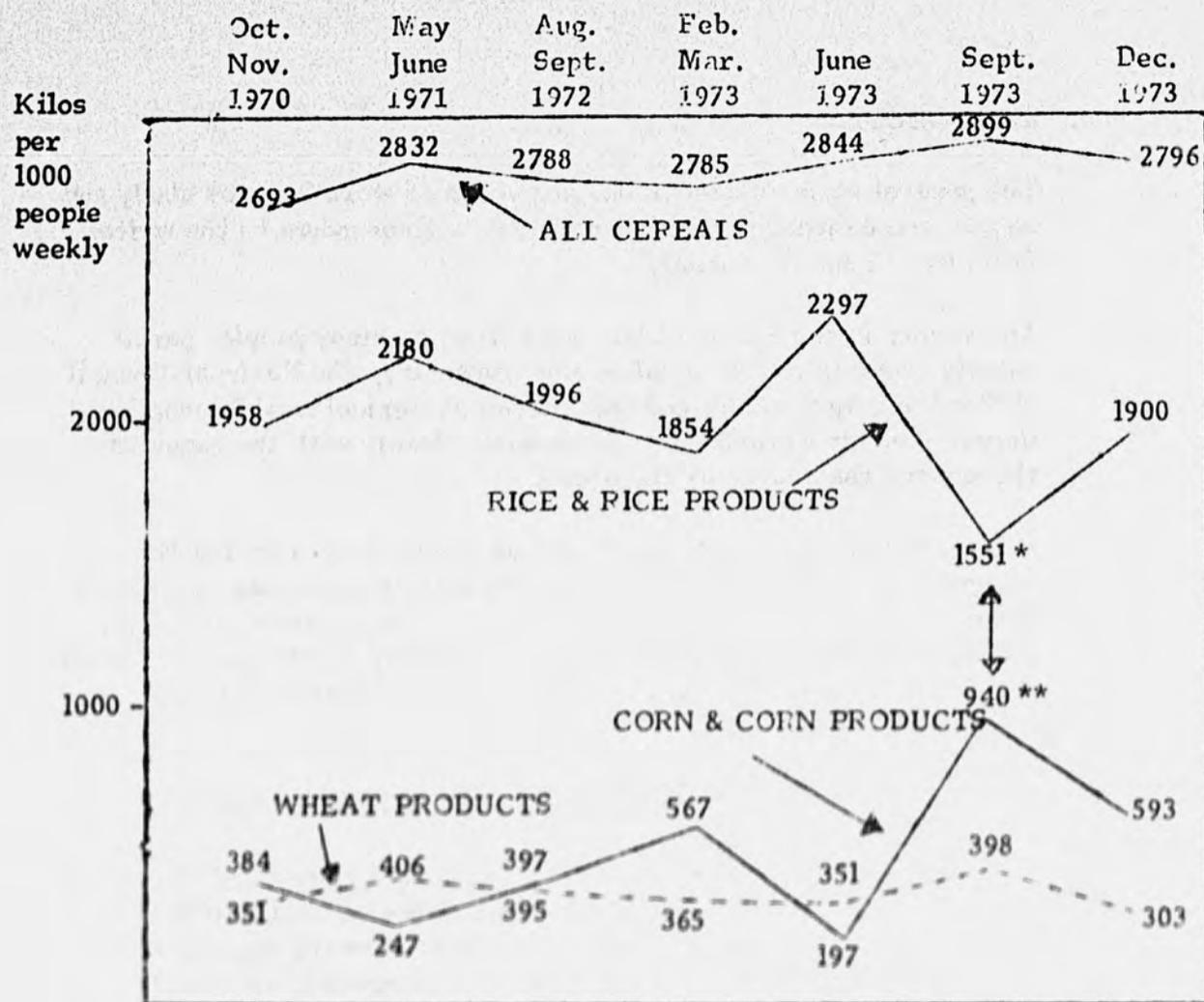
II. SETTING FOR GRAIN MANAGEMENT IN THE NEW SOCIETY

Several key factors affecting Philippine grain management in the New Society need to be recognized. The experience of coping with the severe rice shortages last fall have created renewed awareness of the importance of grain management, including corn and wheat products as well as rice. The sharp rise in prices of petroleum fuels and nitrogenous fertilizers has increased grain production costs significantly in the Philippines and around the world. Consumers are forced to spend larger percentage of their incomes for the staple foods. World reserves of grain stocks are at unprecedented lows. Higher priorities must be placed on minimizing waste and other losses, on efficient handling, processing and distribution, and on the management of storage stocks.

A. Summary of National Production-Utilization Relationships

For the Philippines, self-sufficiency in food grain production is a challenging goal. The food consumption surveys conducted over the past three years by the Marketing Research Unit of the National Food and Agriculture Council show that national average household use of all cereals has not declined in response to rising prices (Figure I). Reported weekly cereal use has remained close to 2.8 kilograms per capita, with a slight upward trend over the 3-year period. There have been shifts from rice to corn in response

Figure I. CEREALS: RATES OF USE, 7 SURVEYS, PHILIPPINES ^{1/}



* Includes 07.7 kilocalories of rice in rice-and-corn mix.
 ** Includes 07.7 kilocalories of corn in rice-and-corn mix.

POINTS:

1. Average rate of use of all cereals (for 7 surveys) was 2,803 kls. per 1,000 people weekly or 2.8 kilocalories per capita weekly; the rate for each survey was within 4 percent of the overall average.
2. Consumption of cereals may have increased slightly.
3. Rice and corn consumption rates moved opposite each other.
4. Reported prices are shown below:

Item	Oct. - Nov. 1970	May June 1971	Aug. - Sept. 1972	Feb. - Mar. 1973	June 1973	Sept. 1973	Dec. 1973
Rice and rice products	0.97	1.16	1.37	1.22	1.39	2.31	1.73
Corn and corn products	0.58	0.91	0.69	0.72	1.12	1.01	0.94
Wheat products	2.03	1.93	2.03	1.99	2.07	2.74	2.67
Rice and corn mix	-	-	-	-	-	1.65	-

^{1/} Summary of Seven Economic Surveys of Food Consumption. E.C. Dossyla and I.B. Barrab. Marketing Research Unit Pamphlet 74-12. May, 1974. NFAC, DANR, Quezon City

to seasonal changes in relative prices, as well as the dramatic shift at the peak of the rice crisis in September, 1973.^{1/} Still the total volume demand for food grains continues to grow at a pace at least equal to the country's rate of population growth.

The long-term upward trend in total domestic rice and corn production barely has been able to keep up with the increasing household requirements. Average annual imports of rice, corn and wheat have had to be increased slightly over the past 20 years. The current all-out efforts to close the production gap are hampered by tight supplies of critical farm inputs, particularly fertilizers.

Seasonal harvesting patterns are significant to grain management policies and programs. Harvest of the main rice crop peaks in November, with about 50 percent of national production harvested in the October-December period. Another 28 percent of total production comes in April-May with the peak harvest of the dry season crop. The remaining harvest comes throughout the year with no more than 5 percent of total annual production coming in any of the other months. The months of tight rice supplies are July, August and September prior to harvest of the main crop. The peak corn harvest starts in August-September when most needed to supplement rice supplies.

B. Regional Differences in Patterns

Striking differences in production and consumption patterns occur from one region to another over the country. Regional differences in average utilization of the different food grains and total utilization of all food grains reported in the four surveys prior to the rice crisis are summarized in Table I. For the country as a whole, corn and wheat products each represent 14 percent of total utilization compared to 72 percent made up by rice.

^{1/} The reported corresponding utilization rates for the February-March, 1974 period are: Rice-1930,3, Corn-590,6, Wheat-265,4. The corresponding reported average prices are P1,96 for rice, P1,41 for corn and P3,09 for wheat products, NFAC Marketing Research Leaflet L74-2 April 25, 1974

Regional Consumption Patterns for Major Food Crops. M. Z. V. de los Angeles, Ed. Marketing Research Unit Pamphlet 73-21. November 1973. NEAC, DANR, Quezon City

CEREALS

TABLE I. CEREALS^a ANNUAL PER CAPITA USE BY REGION, AVERAGE FOR 4 SURVEYS EACH COVERING A 1-WEEK PERIOD, 4,011 FAMILIES, PHILIPPINES (Oct. -Nov. 1970 May-June 1971; Aug. -Sept. 1972; Feb. -Mar. 1973)

Region	Number of families	Rice and rice products	Corn and corn products	Wheat Products	Total
		<u>Kilos per capita per year</u>			
N. Luzon	341	117.0	16.3	19.4	152.7
C. Luzon	549	126.4	2.1	27.6	156.1
S. Luzon*	835	106.5	0.7	21.1	128.3
Iicol	332	113.3	2.8	21.5	137.6
E. Visayas	297	110.1	25.6	14.9	150.6
C. Visayas	345	43.2	88.2	16.0	147.4
W. Visayas	464	113.3	18.2	15.4	146.9
N. & E. Mindanao	300	89.5	11.8	20.7	122.0
S. & E. Mindanao	329	90.2	35.0	21.5	146.7
S. & W. Mindanao	219	87.5	37.6	21.7	146.8
Philippines	4,011	103.8	20.7	19.7	144.3

* Includes Greater Manila area.

POINTS:

1. The annual per capita use of all cereals averaged 144 kilos with Central Luzon having the highest annual rate and southern Luzon the lowest.
2. The per capita use of rice and rice products averaged 104 kilos and ranged from a low of 43 kilos in Central Visayas to 126 kilos in Central Luzon.
3. The per capita use of corn and corn products averaged nearly 21 kilos and ranged from less than a kilo in Southern Luzon to 88 kilos in Central Visayas.
4. Wheat products averaged nearly 20 kilos per capita and ranged from a low of about 15 kilos in Eastern and Western Visayas to nearly 28 kilos in Central Luzon.

Corn and corn products make up less than 1 percent in Southern Luzon (including Manila) but over 60 percent in Central Visayas and about 25 percent in the three Mindanao regions. Compared to those for rice and corn, the utilization of wheat products is relatively uniform over the country.

The relative importance of rice and corn production varies from region to region in a pattern similar to that of household utilization of the two grains. Corn production is relatively most important in Central Visayas and in the Mindanao regions.

Rice production-utilization balances vary sharply between regions of the country. The major deficit region, of course, is Manila and Suburbs. Metropolitan Manila, Central Luzon and the Southern Tagalog Region account for nearly 90 percent of net regional average annual rice in shipments. The major rice surplus producing regions are Cagayan Valley and Ilocos Region. Net annual balances of rice vary between provinces within the regions and normally require intra-regional shipments in volumes substantially greater than total inter-regional shipments.

Further differences among the regions occur in seasonal harvesting patterns. The two seasonal peak harvests occur in all regions except Cagayan Valley, where the harvest is relatively constant throughout the year except for the June-July drop off. The dry season harvest is more important than the wet season harvest only in the Southern regions (Eastern Visayas and the Mindanao Regions). The wet season harvest peaks about one month earlier in the southern regions than in those to the north. The seasonal peaks in harvest patterns can be expected to level out somewhat in all of the areas where additional water control and irrigation programs are being implemented.

These differences in patterns emphasize the need for regional differences in grain management programs as well as the opportunity for "trade-offs" between additional storage and additional transport as strategies in leveling seasonal supplies by region.

- C. Probable Impacts of Agrarian Reform Program can be expected to making increasing impact on the needed services from the marketing system. As more and more of the rice and corn land is brought under the control of the small farmers and the portion of the annual crop

controlled by landlords is reduced correspondingly, a smaller portion of total production will flow through commercial channels, even at the local level. Production for home use will increase in relative importance. The more successful the quedan system of warehouse receipt and other programs to separate production credit decisions from marketing decisions, the greater these impacts will be.

As these shifts take place, the need for the functions now performed by the small "kiskisan" mills will increase in relative importance. It is probable that more even smaller mills will be needed so that the rice and corn for the farmers family can be milled on a custom basis at the local level. Bonded public warehouse storage probably will be needed at these points also, perhaps some with capacities as small as 500 cavans.

This trend poses a great challenge to the marketing system for needed services by the increasing number of small subsistence grain farmers. Technology and management must be packaged in tiny units which can minimize waste and loss and obtain high milling efficiency. Many of the components are available, but as yet are not packaged into viable marketing systems built around the small custom mill. To serve this kind of system the little mills need to be able to produce high quality brown rice for injection into an efficient marketing system for what surplus grain the farmer has, as well as produce high quality polished rice for his family needs. It is probable that these local marketing functions may need to be combined with comparable local storage and distribution channels for fertilizers and other farm inputs through a system of local farm service centers.

The implications for grain buffer stock acquisition programs to support price stabilization policies are equally challenging. As Agrarian Reform targets are reached, this system will need to have the ability, either directly or by arrangement with the private marketing system, to assemble grains efficiently from thousands of small grain centers throughout the country. At least for many of the areas, it will need to have the ability in times of distress to distribute grains back down through the marketing system to the very local rural level.

D. Probable Impacts of Cooperative Development

Although in the early stages of development, the completely revamped

cooperative program provided under Presidential Decree No. 175 already is becoming a major influence in the grain industry. Based in the foundation of barrio associations of small producers (Samahang Nayan), and under the leadership of the Department of Local Government and Community Development through its Bureau of Cooperative Development, marketing cooperatives are being organized where and when the cooperative development can support them. The range of marketing services to small producers through their barrio associations and the range of functions performed in the marketing system is being tailored to farmers' needs and commercial opportunities in each area. Forward market integration through the national cooperative confederation and consumer cooperative outlets already is operational on a pilot basis.

Close working arrangements between the cooperative system and the price stabilization program of the National Grains Authority is fully intended. Presidential Decree No. 175 provides in Section 56 that any of the privileges to be given cooperatives is:

" . . . in areas where appropriate cooperatives exist, the preferential right to supply rice, corn and other grains, fish and other marine products, meat, eggs, milk, vegetables, tobacco and other agricultural commodities produced by members of the cooperatives concerned to state agencies administering price stabilization programs."

Likewise, Presidential Decree No. 4 creating the National Grains Authority provides in Section 5b (i) that the Authority "shall give preference to producer cooperatives in the procurement of grains so as to promote the development of cooperatives in the country.

The encouragement of area marketing organizations is intended also. Presidential Decree No. 4 in Section 5b (f) provides that one of the primary responsibilities of the National Grains Authority is to -

" undertake the division of the country into regions or districts and promote the grouping of existing fragmented private grain establishments therein into organized grain corporations or cooperatives that can serve as the pattern or base for grain milling districts to contain grain production potential and/or for economic sized grain warehousing, milling, packaging and distribution complexes."

The intended coordination between the program of cooperative development and the grain management price stabilization program is being carried out. A memorandum of understanding for this purpose has been executed between the National Grains Authority and the Department of Local Government and Community Development.

As the cooperative program progresses, it can be expected to become a more important factor in the national grain management program. It can be an increasingly important avenue for carrying out many of the specific grain management functions of NGA provided in Presidential Decree No. 4 including -

- . Procurement of stabilization stocks;
- . Distribution of grains from stabilization stocks when commercial supplies are short;
- . Promotion of contractual and other organized inter-relationships among components of the grain industry;
- . Introduction of improved harvesting, threshing, storage, milling, packaging and post-harvest handling of grain;
- . Introduction of improved grain transport and distribution systems;
- . Development of a crop insurance program for producers;
- . Implementation of standard weights and measures and grain grades;
- . Implementation of the quedan system for negotiable grain warehouse receipts.

E. Status of Basic Information to Support Grain Policies

The kinds of basic information need to support grain management and stabilization policies may be grouped into four categories:

1. Crop production and supply information;

2. Consumers demand information;
3. Marketing system information;
4. Market prices, flows and stocks.

The more accurate, detailed and timely the information in all four categories, the more effective the national grain management and stabilization can be.

Rapid strides have been made in assembling, summarizing, analyzing and transmitting the needed basic information in the four categories. However, much is yet to be done in institutionalizing standard management information systems. The development and use of improved information systems deserves continued high priority.

Production Information

The needed crop production and supply information includes:

1. Details on current production costs, including availability and utilization of production inputs and services;
2. Crop intentions and plantings, status of growing crops, anticipated and realized yields, rates of harvest and disposition by farmers;
3. Production prospects, reserve stocks and available supplies in international trade on a world-wide basis.

The information on domestic production is needed on a provincial basis. That on international production and supplies is needed by key importing and exporting countries. In both cases the information needs to include rice, corn, wheat and other grains.

Perhaps the production information is the most nearly systematized of any of the categories needed to support grain management. Various agencies of the Department of Agriculture are generating timely reports of components of the needed information. This is particularly true of the Bureau of Agricultural Economics and the

National Food and Agriculture Council. Both of these agencies are in direct regular contact with grain management planners in the National Grains Authority. The dynamics of current agricultural production and the increasing need for more detailed information combine to make the job of maintaining an adequate production information system more and more challenging.

Consumer Demand Information

The basic information needed on consumer demand includes the short run expectation of the volume of consumer demand for rice, corn and wheat products by locations. This anticipated consumer demand is affected by the dynamics of population, income, relative prices and taste preferences.

1. Key population factors include growth rates, changes in demographic characteristics and migration patterns.
2. Income factors affecting consumer demand include rates of growth and changes in distribution of real income, as well as the income elasticities of demand for the individual food grains and food grain products as a group.
3. The relative price factors include the anticipated levels of food grain prices relative to those of other commodities and relative to one another, as well as the direct and cross price elasticities of demand for the commodities involved.
4. Taste preference patterns vary significantly by region and may be subject to change by changes in age patterns, employment patterns, migration, etc., as well as by direct programs to influence them.

The basic information needed for all four factors affecting demand includes accurate current status information and information needed to develop demand coefficients for projection purposes.

Increasingly timely and accurate information on current household utilization patterns is being developed by the Marketing Research Unit of the National Food and Agriculture Council, as witnessed

by the recent reports quoted above. Plans need to be developed for systematizing the reporting, analysis, transmittal, dissemination and use of this kind of information.

The basic information for accurate short range demand projection by province has to come from many sources and agencies of Government, and from penetrating applied economic research based on this information. In the dynamics of the New Society the job of coordinating, systematizing and institutionalizing a management information system for such information is a great challenge, and much remains to be done.

Marketing System Information

Existing information is relatively weak on the total marketing system for rice, corn and wheat products as it functions from the farm gate to the final consumer within each province and as a national network. Even the information on industry capacities by functions such as grain milling is inaccurate. Good information on channels, flows, margins and costs is almost non-existent except for some specific areas where in-depth studies have been made. Without such information very little can be done in analyzing the structure, behavior and performance of the industry.

Much of the thrust of the Government grain programs is directed toward improving the behavior and performance of the industry to better serve small farm producers and low income consumers. This places high priority on developing, analyzing and utilizing accurate industry information at all levels in the marketing system.

Market Prices, Flows and Stocks

Perhaps the information on current market prices, flows and stocks is the best developed and most nearly systematized of all the categories of information needed for grain management and price stabilization. The information is collected, summarized and reported by the Bureau of Agricultural Economics on the current and regular basis. The methods of summarizing and reporting the information within the National Grains Authority facilitate short range grain management decisions at the

national level. More needs to be done to develop market information reports to support similar decisions at the regional level and to facilitate coordinating decisions at different functional levels within the marketing system.

F. Role of the National Grains Authority

Created as a Government corporation in September 1972 by Presidential Decree No. 4, the National Grains Authority (NGA) is the responsible agency for carrying out the grain management and price stabilization programs of the government. The Administration is attached to the Department of Agriculture. The decree provides that the powers and functions of the NGA are vested in the National Grains Authority Council made up of the Secretary of Agriculture as Chairman, the Administrator of the NGA, the Governor of the Central Bank, the President of the Philippine National Bank, the Governor of the Bank of the Philippines, the Executive Secretary, the Secretary of the Department of Trade and Tourism, and one representative each from the consuming sector, from rice producers, from corn producers and from rice and corn millers and traders. The four private sector representatives to the Council are appointed by the President of the Philippines for four-year terms.

The National Grains Authority succeeded the former Rice and Corn Administration, but has additional powers and functions. Some of the additional functions formerly were vested in other Government agencies; others are new. The sources of funds to the NGA for carrying out its responsibilities as well as the guidelines for their use are specified in the Decree.

The broad and somewhat diverse functions of the NGA fall into three major areas.

1. Industry regulation and supervision, including -

- a. licensing and supervising of grain handlers, warehouses, mills, food processors, wholesalers, retailers, transporters and shippers, elevators, dryer operators, and all others related to the grain industry.

- b. approval, inspection and supervision of bonded public warehouses, and control of warehouse receipts;
 - c. administration of weights and measures, including calibration and certification of scales and other devices used in the grain trade;
 - d. grain grade standards and classification of grains and grain products;
2. Administration of the grain stabilization program, including -
- a. establishing and announcing producers price support levels and consumer price control levels;
 - b. planning and operating national buffer stock of grains, including the acquisition or lease and operation of storage, milling, distribution and other facilities needed to handle buffer stocks;
 - c. direct acquisition of grains to support producers prices and create supplies of buffer stocks;
 - d. control of imports and exports of rice, corn, wheat and other grains needed for price stabilization and balancing of national production and distribution;
 - e. deployment and distribution of supplies from buffer stocks and imports to protect consumer price controls.
3. Industry development, including
- a. research, technical assistance, services and other assistance to the industry in acquiring and operating more effective and profitable facilities and equipment, from thousands to small facilities for final grain products;
 - b. identification, feasibility analysis and assistance in obtaining financing for needed market facilities by qualified individuals, groups or cooperatives in the private industry.

- c. direct services to those in the industry requesting them, including grain classification, millability tests, adjustment of milling and other equipment for higher performance and other direct services;
- d. stimulation and assistance to equipment manufacturers in the production, sales and distribution of improved grain handling and processing equipment;
- e. systematic release of news of market prices and stocks, production and utilization estimates, status of Government buffer stocks, as well as prices, availability and evaluation of alternative types of equipment, financing sources, etc., of direct interest to the industry;
- f. conducting of workshops, seminars, demonstrations and other educational activities for and in cooperation with the grain industry;
- g. other activities designed to improve the viability and performance of the private grain industry.

6. Regional Flexibility in Program Implementation

Regional flexibility in carrying out all these types of programs is needed, and has been a major guiding objective in the plans and programs of the NGR since its inception. This has been done for the reasons outlined in Section II-D (above), and because of problems arising from excessive centralization in predecessor agencies. The NGR operating regions are based on the economic regions of the country developed and used by the National Economic and Development Authority (NEDA) in planning and administering the over-all economic development of the nation.

Accounting and financial control have been systematized and regionalized, with summary reporting and auditing by the national office. Responsibilities and commensurate authority have been delegated to the NGR's regional directors. Considerable flexibility has been given to the regional directors for carrying out national programs within the specific environment and conditions of their respective regions.

III. Status and Developments in the Grain Industry

Before the days of Martial Law, the Philippine grain industry operated largely as profit-motivated largely-uncoordinated regionalized segments. Apparently collusion and graft were not uncommon. Instability created uncertainty and discouraged private investment in improved equipment and facilities. Government and government-supported programs to improve conditions seldom achieved their goals. Some go as far as to say that the marketing system performed as well as it did in spite of the Government assistance programs rather than because of them.

Much of the industry today reflects conditions before Martial Law. Few innovations have been adopted -- many facilities are old and obsolete and help contribute to losses and wastage in the marketing system. However one can seriously underestimate the performance of such marketing facilities by looking at them. Most are well managed and generating a reasonably good cash flow for the owners. Often they render related services to the farmer (producer credit, farm management help, technical inputs, etc.) which are essential to his welfare. Through informal linkages, such apparently independent units often operate much more nearly as a coordinated marketing system than would appear on the surface. Because their fixed costs are very low and they have adjusted to local conditions, such operations sometimes render assembly, milling, storage and distribution at surprisingly low marketing margins between producer prices and consumer prices.

These facts are underscored by relative large and technically more efficient storage and milling facilities scattered over the country which are under-utilized or idle. Such units not only do not compete successfully with the existing private marketing system--they are rendering little or no marketing service to producers or consumers, and have moved their owners in the direction of financial disaster. The answers to all of these questions would fill more than one interesting book.

Informal feedback indicates strongly that the uncertainty which has prevented the private industry from adopting innovations and investing in improvements and expansion has not been reduced. At least until their course, timing and consequences can be predicted, the aggressive new government programs such as agrarian reform, cooperative development and the total NCR program create additional uncertainty in the

minds of private entrepreneurs in the marketing system. Their strategy becomes one more of survival than of economic development.

This situation is illustrated by the direct experience and known facts to date with the NCA program in the minds of most people in the private grain industry. These are primarily the regulatory, supervisory and direct intervention activities. With little evidence so far of the positive programs of assistance and service, their attitudes often are negative, or at best of neutral "wait and see".

In spite of these there is mounting evidence of interest in new private investment in the industry. The recently completed modern rice mill and grain storage unit of Dicol seeds at Libon, Albay is a specific example. If positive action can be taken to counteract the felt uncertainties, it is believed that both the privately-owned and the cooperative segments of the industry will respond to investment opportunities and bring modernization to the grains industry.

By far the most significant single industry development under study from the standpoint of national impact which has come to the attention of the writer is that of the Philippine National Bank. The PNB is considering a program to acquire and operate over 100 rice mills and storage units, each capable of processing 60,000 metric-ton bags of rough rice per year and storing up to 20,000 cavans at one time. The proposal is to acquire and remodel existing facilities where excess industry capacity exists, and to construct new ones (perhaps 20 altogether) where the needed industry capacity does not exist.

The private investment motivation to PNB is the recovery of rice production loans under the Mangrove 99 program by being able to accept repayment in kind. However, the potential impacts of a nationwide network of facilities capable of handling an estimated 8 percent of total marketing of rice available to the industry under a single management control are far reaching. Among other things, such a network would be a major factor to be considered by the National Grains Authority in the management of buffer stocks and other price stabilization activities.

III. FUNCTIONS, ORGANIZATION, PLANS AND CAPABILITIES OF THE NCA

As outlined in Section III-F, the National Grains Authority was formed in

September 1972 by Presidential Decree No. 4, and given broad powers and responsibilities in all aspects of administering the national program of grain management and price stabilization. The Decree makes a clear division between activities related to farm production and those related to marketing. Those related to marketing, starting with harvesting and extending through retail distribution, are included in the responsibilities of the NCA. Those related to grain production clearly are the responsibility of the Department of Agriculture.

A. Organization and Staffing

The present organization of the NCA includes at the top the Administrator, who is responsible directly to the National Grains Authority Council, and one Deputy Administrator, responsible directly to the Administrator. Directly under the Deputy Administrator are seven Directorates, five staff offices and the directors of each of the twelve regions.

The seven Directorates are:

- o Grains Business Regulations, including (1) Licensing, and (2) Quota Management;
- o Marketing, including (1) Procurement, (2) Transportation and Shipping, and (3) Distribution;
- o Technical Services and Development, including (1) Standards and Quality Control, and (2) Industrial Services and Development;
- o Planning and Programming, including (1) Grains Research, and (2) Statistics;
- o Finance, including (1) Budget, (2) Accounting, (3) Special Funds, and (4) Treasury;
- o Administrative and General Services, including (1) Administrative and Personnel Services, (2) Security Services, and (3) General Services;
- o Public Affairs, including (1) Mass Media, (2) Special Events, and (3) Business Promotion and Development.

The five staff offices are:

Executive Staff, serving as direct advisors to the Deputy Administrator and Administrator in specialized functions and activities;

- o Corporate Legal Counsel
- o Methods and Systems, conducting continuous studies on work methods, procedures and program effectiveness;
- o Corporate Planning
- o Enforcement

The 12 regional offices follow the economic regions for the country. Each is headed by a Regional Director, who is responsible for all functions of the NCA at the regional level except research projects. Direct responsibilities of the Regional Director include:

- o Administrative
- o Fiscal
- o Accounting
- o Registration and Licensing
- o Operations

For the most part, the personnel of the NCA represent competent dedicated young professionals. They were recruited carefully, using both written and oral qualifying examinations. The substantially higher salary scales than those of the Government gave the NCA staff recruiters a definite advantage in selecting those best qualified for each position in the organization. They were drawn from other Government agencies and private industry. Of the total staff strength of about 2,200, less than 300 were recruited from the 2,700 employed by the predecessor organizations of the NCA.

During its first year of operations, the NCA pursued an active program of personnel training through specialized seminars, workshops and on-the-job training. Seminars have ranged from those in executive development at the Development Academy of the Philippines to technical

training for grain classifiers, pest control technicians and milling supervisors at the United Nations Development Program at Los Baños. Interest remains high for continued staff training and development, built around specialized training seminars and on-the-job training by consulting experts.

B. Status of Major Plans and Programs

The major line program operations of the NGA in carrying out its assigned functions may be grouped into (1) regulation and supervision, (2) price stabilization, and (3) industrial development. The staff offices and other directorates may be viewed largely as staff functions to support the three major line operations.

1. Regulation and Supervision

The regulatory and supervisory functions of the NGA are fully operational in all regions of the country. The second annual registration of the grain millers and handlers across the country has been completed. Inspection and supervision were frequently used during the period of the rice crisis last year. Closings and prosecutions were made where serious violations of regulations were found.

Plans are completed and the program operational for licensing bonded public warehouses. Standard quedan (warehouse receipt) forms have been printed and the control system for their issuance and use perfected. To date, however, relatively few applications have been received for licensing as bonded public warehouses, and the quedan system is not yet in general operation in the industry.

The standards and quality control programs are operational on a limited basis. Most of the activities in inspection and calibration of scales, the initiation of standardized classification and grading and the application of millability tests have been in connection with the procurement and distribution programs of the NGA. The extension of these activities to the private industry has been limited.

2. Price Stabilization

The National Grains Authority is active in grain stabilization programs

including -

- (1) domestic procurement;
- (2) importation;
- (3) maintenance of buffer stocks; and
- (4) distribution in consuming markets.

The initial estimates are that 10 percent of total rice and corn stocks should be under the NGA control in order to make the price stabilization program effective.

The domestic procurement program serves two purposes

- (1) to insure farmers of a sales outlet at the announced support price, and
- (2) to procure grain for addition to buffer stocks.

Procurement is achieved in three ways -

- (1) direct procurement, ex-farm, at the established support price,
- (2) take-over of grain accepted as payment in kind by banks, Government agencies and cooperatives for payments due from producers. This procurement is at the current market price, but not lower than the support price.
- (3) Purchases in wholesale markets (miller's quedan) at current market prices.

As of May 9, 1974 total domestic procurement for the current fiscal year in units of 50 kilograms sacks is as follows:

<u>Method</u>	<u>Rough rice</u>	<u>Polished riced</u>	<u>Total rice equivalent</u>
Direct procurement	132,334	149,740	
Payment in kind	361		
Miller's quedan	<u>417,100</u>		
T o t a l	549,795	149,740	485,115

Total domestic corn procured to date (in terms of grits) is 227,750 fifty-kilogram bags.

Procurement through importation currently is a major source of additions to national buffer stocks. The preliminary estimates of imports for the current year are 240,000 metric tons of rice and 61,745 metric tons of corn. Current national inventories (May 9) of imported rice are 2,170,037 fifty-kg bags. Current imported corn inventories are nil. Expected port arrivals include 956,000 fifty-kg bags of rice and 2,000,000 fifty-kg bags of yellow corn.

The NGA guideline in positioning total buffer stocks is based upon estimated total household utilization requirements by region. Manila is given extra weight in the formula in order to be able to protect price ceilings during the lean rice months of July, August and September. Most of the buffer stocks are stored in warehouses owned and leased by the NGA, the current capacity of which is about 2.2 million 50-kilogram bags. The remaining buffer stock inventory is stored in private warehouses under bonded warehouses receipt or on a contractual basis for NGA.

The basic criteria used by the NGA in planning market injections over the country to stabilize consumer market prices are -

- (1) the monthly average rice price index;
- (2) the NGA sales performance;
- (3) the total available rice supply for the month; and
- (4) income levels of consumers.

All are based on averages by province. During the injection period, the movement of local market prices is monitored closely and injection rates are adjusted to maintain the desired impact in retail prices.

Injection stocks are distributed to established retailers on the basis of local population by targeted income-group. Increased use of groups such as Barangays, consumer cooperatives and others will be made where the ratio of retail outlets to population is considered inadequate.

3. Industry Development

The technical services and industrial development programs of the

National Grains Authority have taken longer to get operational than the other two major activities, and to date little impact has been made. Policies and plans are clear and the immediate challenge is to implement the program.

The stated declaration of policy is definite, "It shall be the policy of the National Grains Authority to promote the integrated growth of the grains industry (rice and corn and other grains) so that it can adequately function as an institution conscious of its social responsibilities and capable of providing adequate and continuous cereal supply to the nation and of contributing its proper share to the national economy". The stated objectives with respect to industry development are

- . To upgrade and develop existing grains facilities and encourage the establishment of new facilities;
- . To develop a more responsible and effective manpower in the grains industry.
- . To coordinate the activities of the various components of the industry.
- . To promote local and foreign investments in the grains industry;
- . To adopt other measures as may be necessary for the integrated growth and development of the industry". (NGA Program, '74-'75, pp. 9-10).

In order to implement the program to carry out these objectives, the NGA has recently developed and announced a national system of regional and provincial grains service centers to demonstrate the feasibility of operating post-harvest equipment from the farm through the entire marketing system. Functions to be given specific focus include (1) threshing, (2) cleaning, (3) drying, (4) handling, (5) storage and (6) milling.

The regional centers will be used to assist the industry to acquire and use improved facilities and systems, the provincial centers will be used to assist farmers, farmer associations and first handlers to acquire

and use the improved facilities and systems. The centers also can be used to support grain procurement and price stabilization operations. The priority grain service centers are planned to be operational next fiscal year, 1974-75.

Regional Grains Service Centers are planned in the following provinces:

- . Nueva Ecija
- . Iloilo
- . Isabela
- . Camarines Sur
- . Mindoro Oriental
- . Leyte
- . Pangasinan
- . Cotabato

Provincial Service Centers are planned on the basis of first priority and second priority as follows:

First Priority

- . Cagayan
- . Kalinga-Apayao
- . Nueva Viscaya
- . Mindoro Occ.
- . Quezon
- . Albay
- . Camarines Norte
- . Antique
- . Capiz
- . Aklan
- . Bohol
- . Lanao del Sur
- . Samar
- . Negros Or.
- . Surigao del Sur
- . South Cotabato
- . Agusan del Sur
- . Misamis Or.
- . Mis. Occ.

Second Priority

- . Abra
- . Ilocos Sur
- . La Union
- . Cavite
- . Catanduanes
- . Sorsogon
- . Negros Occ.
- . Cebu
- . Eastern Samar
- . Northern Samar
- . Southern Leyte
- . Western Samar
- . Zambo. del Norte
- . Zambo. del Sur
- . Camiguin
- . Surigao del Norte
- . Davao del Norte
- . Davao del Sur
- . Davao Or.
- . Laguna
- . Ilocos Norte

The exact priority among the 8 Regional Centers and 51 Provincial Centers has not been announced; nor has the storage and milling capacity at each point. The service centers will be coordinated with the cooperative development program, so that priority will be given to areas where area marketing cooperatives are operating and planned in the immediate future.

The training programs will be time-phased with the construction of each center. Meeting rooms, grading and milling laboratories, visual and other teaching aids will be included in the facilities. Course outlines, instructional methods, handouts, instructional staff and other details will be developed to time with opening of the centers. Every effort will be made to solicit the active participation and support of equipment manufacturers and other private industry representatives as well as the formal participation of financing institutions and public agencies.

The NGA staff in the regions and provinces will be trained to develop budgets and make feasibility analyses for investors and operators interested in modernizing their operations or entering the industry. They will help them obtain assistance in financing, and will conduct training for their employees. Existing research and training centers such as the University of the Philippines, Los Banos, the International Rice Research Institute and the United Nations Development Program research and training center will be utilized.

In order to help with the financing of construction of the centers, plans are being made to obtain access to the outstanding loan by the International Bank for Reconstruction and Development for modernizing Philippine grain conditioning, storage and milling facilities. In preparation for doing so, Presidential Letter of Instruction No. 185 has recently been executed (May 13, 1974). The Letter of Instruction makes it clear that the National Government assume responsibility for any outstanding obligations of the defunct Rice and Corn Administration in connection with the existing "Butler" up-country warehouses. It assigns ownership of existing facilities to the NGA and instructs the Development Bank of the Philippines to make IBRD funds, as well as its own funds available to the NGA, private corporations and individuals to help finance improvements in grain facilities, either existing or new.

C. Policies for Producer Price Supports

The basic obligation and policy of the National Grains Authority to support the price of grains received by farm producers is stated in Section 5b of Presidential Decree No. 4 which created the Authority. The Decree provides that the support price shall be sufficient to cover the anticipated production costs for the current season, including imputed costs for unpaid family labor, plus a reasonable profit for the producer. The Decree also provides that the support price for the forth-coming season will be announced before planting time. At present this is by the end of May and by the end of October each year. The exact level of the price supports is left to the NGA, except that for the first five years the price support for corn grain must be no less than P0.60/kilogram.

The present support levels are substantially below world market prices. They are uniform for all regions of the country, and uniform through time for a given season's crop. They also are uniform by quality, except that standards discount scales are provided for grain above the minimum standard in moisture and/or foreign material content. The NGA has the authority to establish differentials in support price levels if such a course were desirable. Suggestions for developing the needed information and formally analyzing the impacts of such alternatives are presented in Section V.

D. Policies for Consumer Price Controls

Presidential Decree No. 4 provides the basic obligation and policy of the NGA to protect consumer price ceilings, and that ceiling levels shall be related to significant changes in the Consumer Price Index. The determination of the structure of price ceilings for grain and grain products and the timing of announced changes in price ceilings is left to the discretion of the NGA and its board of directors, the Council.

The present price ceilings are uniform over the country and uniform through time until an announcement is made changing them. The impacts of building geographic and time surfaces into the ceiling prices to be protected by market injections from national buffer stocks probably should be evaluated carefully before such changes are

made (see Sections V and VI).

E. Policies for Management of National Buffer Stocks

Presidential Decree No. 4 provides for the maintenance of buffer stocks, for procurements to build stocks, and for withdrawals from the stocks for injection into consumer markets. Regarding management of these stocks, the Decree says only that the NGA has the responsibility to "devise a system by which it can insure the adequacy of supply and stability of consumers prices at levels within the reach of low-income families, while maintaining the announced floor price for the producers." (Section 5(d)).

The basic policies, guidelines and practices being followed by the NGA in the management of buffer stocks are outlined in Section III-B-3 (above). In addition to these, the Authority follows a policy of storage management control to minimize quality deterioration and shrinkage losses to the stored grain. The policy includes:

- Cleaning and applying preventive treatment to the warehouses before receiving grain;
- Inspection of the grain (both domestically procured and imported) as it is received to be sure it is of sound and storable quality;
- Routine inspection of stored grain and fumigation when needed (a total of 585,044 metric tons were treated in 1973-74).
- Application of rodent control measures;
- Liquidation of storage stocks which are threatening to deteriorate;
- Maintenance of perpetual grain inventory accounts, checked by audit of physical inventories, to guard against unexplained shortages.

IV. SUGGESTIONS FOR IMPROVING NGA OVER-ALL OPERATIONS

It is believed that some relatively minor changes in internal organization could be made to strengthen the over-all operations of the National Grains Authority. The recommendations include (1) changes to bring about a line

organization by the three major operating functions, (2) consolidation of key staff support functions, (3) strengthening of middle management functions, (4) management policy framework for delegation to Regional Directors and (5) efforts to strengthen working relationships with the grain industry.

A. Line Organization by Major Operating Functions

The major operating functions of the NCA which bring the Authority into direct contact with producers, with consumers, with the grain industry are:

- (1) regulation and supervision,
- (2) price stabilization, and
- (3) industry service and development

Some coordination across these functions is needed at all levels, but each of them can operate best if it performs as a distinct operating division. The functions need to be so distinct that they are viewed almost as different agencies by the industry.

In order to achieve this and reduce the number of directorates and offices reporting to a single top executive, a three-way organization split from the provincial offices clear to the Administrator's Office is recommended. The regulatory and supervisory line organization would include the functions of the present Directorate for Grains Business Regulations plus the enforcement of weights standards and quality control. The Enforcement Office probably would be attached to this line activity. With respect to operating functions as distinguished from administration matters, the counterparts in the regional offices and in the provincial offices would report through this line rather than through the Regional Directors directly to the Deputy Administrator and Administrator.

The line for price stabilization would be organized in similar fashion, right up through from the provincial offices. It would incorporate the function in the present Directorate of Marketing, and would also include importation, stocks management, and physical grain inventory control. Much of the staff work in the present Directorate of Planning and Programming might best be attached to this line.

The line for industrial services and development, would follow similar straight-up organization; probably it would be the central line in the organization chart and headed by the Deputy Administrator's Office. It would encompass the functions of the present Directorate for Technical Services and Development (except for the regulatory functions of standards and quality control) plus all business promotion and development activities. It also would encompass major functions not shown on the present chart such as:

- (1) engineering, plant operation and maintenance, and supervision of construction,
- (2) education and training, and
- (3) research on industry structures and performance.

Probably the Corporate Planning Office should be attached to this line at the Deputy Administrator level.

B. Consolidation of Key Staff Support Functions

The remaining three existing Directorates (Public Affairs, Administrative and General Services and Finance) perform staff-like services, but have to operate down through the organization with counterparts at the regional and provincial levels. Perhaps these functions might be organized into a fourth major line such as "Administrative and Public Services". If so, the Comptrollership and Treasury might be pulled out as true staff offices and attached to this staff-like line at the top of the organizational chart. The Methods and Systems Office might also be attached to this line. This office probably should contain a section for professional staff training and development.

The Offices of Corporate Auditor and Legal Council should remain as key staff offices, probably attached directly to the Administrator's Office.

The concept of Executive Staff is excellent, and facilitates the task force approach to pull key people from several levels in the organization (and outside consultants) to work directly with top executives on special assignments. It can work best if those given major task force assignments are temporarily relieved of their regular assignments. If the

idea of developing competent subordinates is applied generally in the Authority, the opportunity for a subordinate to take over temporarily while his superior is assigned to a task force helps the subordinate develop also. Perhaps the best way to visualize this type of Executive Staff is by a dotted line in a direct staff alignment with the Administrator's Office.

C. Strengthening of Middle Management Functions

The above points leads to what is believed to be another need in the Authority at this stage of staffing development - the strengthening of the functions performed by those at middle management levels. It appears that those at the Directorate level (or just below) and higher are very competent but seriously overworked, while many of those at middle management levels have little chance to demonstrate their competence. Some additional organization and delegation would help on both problems. Perhaps more consultative management by superiors with those at the middle management level would help. The task force approach can be used here too. It appears that many of the people in middle management are lacking more in experience than in talent, and would respond rapidly to any proven on-the-job executive development program. If this talent is harnessed, it should add greatly to the response capability and to the total performance of the Authority as a whole.

D. Clear Management Policy Framework for Delegation to Regional Offices

The decentralization of management responsibility from the central office to the Regional Directors actively pursued by the National Grain Authority is to be commended. This policy already has proven its value, both in terms of accomplishments and in terms of savings in staff and office costs. The marked differences from one region to another further support this policy.

The problems that seem to be growing out of the decentralization are in keeping with the national focus in the program, and in coordinating 12 somewhat different regional programs. Most of these can be avoided without changing the decentralized authority and responsibility

at the regional offices by providing a clear set of national policy guidelines to accompany the delegation. Such policy guidelines can be formulated more easily if applied separately to the line program areas outlined above.

The national policy guidelines with respect to established policies of the NCA should be brief and clear. They should specify the range of latitude each Regional Director has in carrying out the various programs. They should indicate the kinds of decisions by the regional office which tend to set (or modify) national policies, and therefore should be reviewed by the national office before action is taken at the regional level. If this is done properly, Regional Directors will find that the frequency with which they need to check before taking action in their region is greatly reduced.

The guidelines within which the delegation is made also should indicate those matters with respect to which no clear national policy has been established. If some of these matters cause problems to the Regional Directors in making judgements, then a national policy may need to be developed to cover them. If a full set of draft guidelines has been worked out and presented in conference with all Regional Directors, most of the additional issues requiring national policy can be ferreted out immediately. Henceforth, the guidelines may not need to be reviewed with the Regional Directors more often than once per year.

The same kind of policy guidelines at a more operational level probably should be developed to accompany the delegation from the Regional Directors to the provincial offices. Even though personal contact at this level may be relatively frequent, many more questions arise in unifying regional programs and still preserving the needed delegation to the provincial level.

Regular standardized summary reporting needs to flow back up the delegation channels of the organization. The management reporting system seems to be functioning quite well within the National Grains Authority.

E. Efforts to Strengthen Working Relationships with the Grain Industry

The evidence of need for the NCA to strengthen working relationships with all segments of the grain industry has been discussed (see Section D-F). The need will strengthen as the Grains Service Center Program is initiated. The recommended separation of the regulatory functions and the industry development functions within the NCA will help set the stage for improved relationships. The recommended transfer of business promotion and development to the technical services and industry operation also will help.

There are a number of additional things which can be done by the NCA to strengthen relationships within industry. The first probably is to select carefully industry respected nominees, and urge Presidential appointment of the private industry members to the National Grains Industry Development Council.

Another early step is to establish regular dialogue with the leaders of the key trade associations (such as the Rice and Corn Millers Associations) at the national level, the regional level and the provincial level. The trade associations have much in common with the National Grains Authority in desiring to build a viable industry which functions in the national interest.

V. DEVELOPING AND ANALYZING INFORMATION FOR EVALUATION OF ALTERNATIVE GRAIN PRICE STABILIZATION POLICIES

The need for rigorous evaluation of the consequences of alternative grain price stabilization policies on a continuing basis over the next several years is apparent. Never before have there been so many complexities to consider nor such relatively insignificant food grain reserves anywhere in the world. Difference in benefits of a relatively large number of plausible alternatives can affect drastically virtually every Filipino, be he a small self-sufficient farm producer or an urban factory employee earning cash to buy food grain products for his family requirements. Differences in the public cost of the alternatives are of a potential magnitude beyond the financial capabilities of the nation.

The effectiveness of the grain price stabilization policy decisions which must be made depends directly upon the number of viable alternatives presented

to the policy makers with careful analysis of the direct and indirect consequences. The number of alternatives which can be analyzed satisfactorily depends directly upon the quality of relevant information available and the systematic rigor with which it is analyzed. This means that development of the needed information and institutionalizing rigorous methodologies for relating the information to evaluate alternative policies need to be given priority in the months ahead.

A. Key Price Stabilization Policy Alternatives in the Present Setting

The grain stabilization policy alternatives facing Philippine policy-makers may be considered in sort of a hierarchy from the more general (and consequential) to the more specific sub-alternatives:

1. Targeted base in relation to longer-term market equilibrium;
2. Degree of inter-year flexibility around targeted base;
3. Degree of seasonal flexibility around targeted base;
4. Geographic surface of targeted prices;
5. Quality surface of targeted prices.

At each of the levels in this sort of hierarchy of stabilization policies,^{1/} the available alternatives range over a continuum from complete stability (e.g. constant prices in real terms) to prices based on market interaction of supply and demand (no stabilization program).^{2/} Ordinarily, the relevant decision range will be some discrete segment of this continuum between the two poles.

Targeted Base in Relation to Longer Term Market Equilibrium

If the Philippines were expected to be just self-sufficient over the next

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- ^{1/} Each of these policy questions in the hierarchy list also involves the question of a rice policy versus a food grain policy, discussed below.
 2. It is presumed that stability goals will be expressed in terms of price, with adjustments in the levels of buffer stocks (and the rates of quantity flows into and out of the stocks) the means, rather than vice versa.

several years, then the targeted base in terms of several-year average real price presumably would be equal to the longer-term domestic market equilibrium price.^{3/} Net exports might vary up and down from year to year, but would average zero over the period. If, as at present, the pressure is on increased production to balance projected demand, then the targeted base price probably will be below the domestic supply-demand equilibrium price, and imports will be used to control prices to the targeted base. The reverse probably would be true if agricultural surpluses forced the equilibrium price to the point that producers could not cover production costs.

These kinds of decisions have to be made with careful thought to expected world market equilibrium price levels. This is true because the public costs of grain imports (or the public earnings from exports) are dependent on the world price levels.

Degree of Inter-Year Flexibility Around Targeted Base

At this step, both the benefits and the costs (because of the size of the buffer stocks required) increase as additional stability and less flexibility is targeted. However, it is unlikely that costs and benefits will vary in constant relationship over the continuum of alternatives considered. The magnitude of both the benefits and the costs at a given level of targeted inter-year stability will depend upon the size and nature of the projected year-to-year relative variation in domestic production.

Degree of Seasonal Flexibility Around the Targeted Base

The policy question is similar to the one above, but the answer depends upon projected seasonal harvest patterns in relation to storage costs (and upon regional differences in seasonal harvest patterns in relation to transport costs). It depends, too, upon the capacity and performance

^{3/} This would be true unless the policy was intended to redistribute residual family net income between producers and consumers on some basis other than that determined by the equilibrium market price of the food grains

of the private industry in providing the storage and transport functions, and the seasonal price flexibility required to induce them to do so.

Geographic Surface of Targeted Prices

This is the question of what differentials, if any, to target in farm price support levels by region and in consumer price levels by market location. If none are targeted and the program is operated to realize the targets, then the largest Government purchases will tend to be at production points most distant from the deficit markets. Operation of the program will require the Government to absorb a major portion of the transportation cost. The consequences of alternative targeted differentials in relation to transport cost from surplus to deficit areas can be worked out quite easily in simplified cases. In the more complex situation of the Philippines, the task is much more difficult and probably requires the use of a computerized transportation model.

Quality Surface of Targeted Prices

This is an interesting policy question also, the answer to which depends upon (1) consumption patterns by income group, (2) the supply-demand determined price differentials by quality, and (3) the relative importance of consumers at different income levels as the targeted beneficiaries of the stabilization program. Panama has for some time pursued a price stabilization policy of enforcing price ceilings for the lower grades of rice while letting the premium grades sell at market determined prices, for example.

Grain Stabilization Versus Rice Stabilization

This policy question gets into somewhat more complex considerations involving all five of the hierarchical alternatives. The answer seems to be that if consumers will voluntarily shift from one grain to another when price relationships are favorable (and there are restrictions or at least time lags in responsive production shifts), all grains must be considered simultaneously in evaluating alternative price stabilization policies. Otherwise, cross impacts on the prices of related grains might endanger the success of the stabilization program. Analysis of the alternative price support policies which accurately reflect

the magnitude of supply and demand interdependencies certainly can show the extent to which stocks of one grain can be used to help stabilize the prices of one or more related grains.

B. Importance of Knowing Impacts and Costs (Both Direct and Indirect) of Alternative Policies

The basic alternative to analysis of the consequences of alternative grain stabilization policies is to select a policy on the basis of available information and judgment, implement it and wait and see the consequences. If the framework is sufficiently flexible, it may be possible to adjust the policy if undesirable consequences appear. If this process is repeated enough times, a desirable policy may be evolved. Many past policies have been developed in about this manner, even in the developed countries of the world.

In matters as important to the welfare of the masses of the nation's people as grain management and price stabilization, this is a risky alternative under present conditions. At best, it is likely to consume a large amount of time of top planners and policy makers constantly putting out "brush fires" and modifying policies. Frequent alternations in national policy create uncertainty and may generate the very kind of instability the policies were designed to overcome. At worst, trial and error policy determination can get the nation on a irreversible course of serious consequences. Even if this does not happen, experimentation with matters with such direct effects on the welfare of millions of people leaves much to be desired.

It appears that the present setting for determining Philippine grain price stabilization policies is between this extreme and the ideal where the consequences of a large number of plausible policies can be evaluated accurately and presented to policy makers. A realistic goal would appear to be pushing a substantial distance toward the ideal as expeditiously as possible. Some of the requirements to push in this direction are outlined in the following paragraphs.

C. Information on Projected Levels of Production and Seasonal Harvest Patterns

As indicated in Section II-E, sufficiently accurate semi-detailed information for policy planning purposes is being generated on crop plantings,

growing conditions, probable harvests, etc. by region and for the nation as a whole. Some small changes in the crop surveys of the Bureau of Agricultural Economics would be most helpful. An example is the inclusion of up-dated summer crop planting intentions in the June survey. More current information on monthly harvesting and marketing rates also would be helpful.

Because of the size and structuring of the farm sample imposed by budget and staff limitations, less information is available by province and sub-province areas. Since the more detailed geographic breakdown of production estimates can be approximated from available benchmark data for the smaller units and the current estimates for the aggregated areas, the costs of generating more detailed estimates cannot be justified for this purpose alone.

The writer has not had the chance to work with the available current information on farm production costs needed to periodically adjust farm price support levels. It would have been desirable under current conditions of using farm input costs to base the support prices on a weighted index of key farm inputs prices rather than to manually adjust the support prices when changing conditions bring them out of line with production costs and prevailing market prices. At least such an index could be developed and systematized for routine reporting to policy makers in order to facilitate decisions regarding if, when and how much price support levels may need to be adjusted.

Longer run projections of production levels and patterns also are needed to support the more basic price policy decisions (such as No. 1 and No. 2 in the hierarchy discussed above). These can be developed by applying recent historical trends in plantings and yields to the anticipated results of land and water resource development programs; or they can be developed by more complicated formulas reflecting the anticipated impacts of current programs to increase farm production. The latter method is potentially more accurate but has a strong tendency to overstate the increased production actually to be achieved. Often a combination of both methods is most effective.

D. Information on Projected Consumption Patterns and Responses to Changing Patterns

Two basic approaches can be used to develop current estimates of house-

hold consumption estimates than for those on a regional or provincial basis.

The other approach is to develop current household utilization rates from sample survey data such as those quoted from the National Food and Agriculture Council reports in Section II. These can be converted to population estimates in the same manner as the Bureau of Agricultural Economics production estimates. The approach is more useful for developing household utilization rates on a seasonal basis. It appears that current consumption data based on this approach would be much more useful to the NGA planners, especially if the sample for the NFAC panel is expanded to 10,000 households as intended. The longer range household utilization projections, as well as the estimates needed to check simulated changes in relative prices need to be given more attention to make them sufficiently accurate for reflecting the significant differences between provinces and between regions (see Section II-E). The data and research work at the Bureau of Agricultural Economics with technical support from Project Adam consultants provides a good base for development of the structural coefficients needed for the longer run projections. The supporting research by the University of the Philippines Technical Assistance Group to the Bicol River Basin provides additional basis for expanded efforts in this area.

E. Information on Marketing Channels, with Capacities and Flow Patterns by Function in the Marketing System

As indicated in Section II, this kind of information on the grain marketing system is a weak link in the available information to support price policy decisions. The data originating from the industry registrations by the NGA can be helpful if used cautiously. However, these data must be supplemented by information gathered from other sources, including sample surveys. The recent experience of the Bicol River Basin Council with graduate student support from the East West Center in Honolulu provides guidelines for assembling and analyzing such information. The agribusiness task force from the Council will be conducting the final analysis and incorporating it into a transportation-storage-processing computer model during June, 1971. It is recommended that the National Grains Authority designate two key people who can profit most from the first hand experience to work closely with the task force during this period. This should give them sufficient knowledge of the procedures

and results to judge the usefulness of the approach for developing accurate marketing system information on a national scale.

F. Current Rates of Flow and Stock Levels by Market Position, Including Consumer Households

It appears that adequate information on current rates of flow and stock levels in commercial channels to support grain management policies at the national level is available and reported systematically (see Section II-E). A minimum of additional effort will be required to develop management information reports from the available information to support the grain management policies at the regional level.

The missing element in these reports from the Bureau of Agricultural Economics surveys is the rate of utilization and stock levels by households, both farm and non-farm. This information can be estimated from the National Food and Agriculture Council, Marketing Research Unit sample surveys, and incorporated in the reports now prepared by the NGA staff to support grain management policy decisions at the national level. It also needs to be incorporated in the recommended regional reports to support comparable decisions at that level.

G. Formalized Methodologies for Analysis of Alternatives

A number of relatively powerful formalized methodologies and analytical tools are becoming available for estimating the direct and indirect impacts of alternative grain price stabilization policies. They can put to regular use as soon as they are fully developed and the kinds of information outlined above become available for fine-tuning them to the current setting in the Philippines.

Highly promising methodologies for potential early application here include (1) the system of structural prediction equations in the final stages of development under Project Adam, (2) transportation-storage-processing linear programming models such as the one being developed by the Bicol River Basin Council, and (3) dynamic simulation models of the type being developed by the Asian Institute of Technology for the Bicol River Basin Council and more particularly the similar KASS grain management model in the late stages of development in Korea.

Each of these types of computerized methodologies, together with its linked input generator and management report routines, is most useful for specific parts of the analysis of alternatives. Together they can be the basis for powerful analytical methodology to support the price stabilization policy and grain management decisions by the National Grains Authority.

Carefully selected industry advisory committees will also strengthen working relationships, especially if the committees are used effectively and really put to work on tough problems. Such committees can be used to help NGA strengthen its programs at the same time. This is especially true for the industry development program; but it applies also for the regulatory program and the price stabilization program.

Seminars, conferences, workshops and other joint meetings also can be used to strengthen relations. As the Grain Service Center Program gets under way, there will be opportunities for many joint activities, each of which will strengthen working relationships still further.

VI. SUMMARY OF RECOMMENDED PRIORITIES TO ENSURE AN EFFECTIVE GRAIN PRICE STABILIZATION PROGRAM IN THE PHILIPPINES

The following recommendations summarize what appear to be priority needs to ensure an effective grain price stabilization programs in the Philippines in the months and years ahead. Most of the supporting discussions for these recommendations appear in the body of the report. Cross reference is made back to the sub-sections containing the most relevant supporting discussion for each recommendation.

A. Additional Study of Alternative Stabilization Policies and Shortages

Present stabilization policies of the National Grains Authority should not cause problems through the calendar year 1974, even though there will be pressure during the lean rice months of July, August and September. This is the time to assemble the additional information and develop the methodologies for study of the impacts of alternatives policies which may be needed in the future. Without preparations now, there will not be time to analyze the consequences of viable alternatives after signals are evident that present policies must be modified.

B. Development of Formalized Management Models to Guide Acquisition, Deployment and Release of Storage Stocks

The increasingly complex set of interrelated factors which affect the implementation of price stabilization policies place premium on analytical tools capable of supporting grain management decisions. Some of the analytical tools now being developed for the Philippines can be modified and tuned to address these questions. The additional effort required to mobilize these tools should have a very favorable benefit cost ratio.

C. Continued Emphasis on Mobilizing Cooperatives and Private Industry for Grain Storage Management in the National Interests

So long as reasonable profit expectations are maintained, the grain industry can be motivated to carry much of the inventory required for stabilizing seasonal prices to the benefit of both producers and consumers.

This releases Government resources for those grain price stabilization activities which an efficient private grain industry cannot be expected to perform. Programs designed to improve the industry warrant continued priority by the National Grains Authority. II-II, IV-E

D. Early Implementation of the Provincial and Regional Grain Service Center Program

The Grain Service Center Program recently announced by the National Grains Authority can be very effective in stimulating adoption of improved technology, methods and management for threshing, handling and storage of grain. It focuses on the critical local level and first handler functions. It is sufficiently comprehensive to impact all major grain production areas of the country. It is the type of program which could not develop without Government sponsorships. Early implementations of the program is urged. II-C, IV-B-3

E. Utilization of the Existing IBRD Grain Marketing and Processing Facilities Loan to Help Finance NGA Grain Service Centers

The largely unused loan to the Philippine Government by the International Bank for Reconstruction and Development of US\$1.4,2 million is intended to finance improvements in grain facilities and handling methods. It is believed that Presidential Letter of Instruction No. 185 will eliminate the difficulties growing out of unfavorable past experiences, and pave the way for effective utilization of this loan for its intended purpose. It is recommended that every effort be made to expedite utilization of these funds to help finance the NGA Grain Service Centers and the appropriate private industry facilities that will follow. III-B-3

F. Recommended USAID Support of the National Grain Management and Price Stabilization of Programs

Active USAID support of the national grain management and rice stabilization programs is recommended. It is believed that implementation of the recommendations summarize above, as well as those in Section IV for strengthening the operations of the National Grains Authority may be expedited by additional technical assistance in the following areas:

1. Consultants to help conduct in-country training seminars for key

NCA staff members and others on the use of formal methodologies for evaluating alternative price support policies and grains management strategies.

2. Consultants to help in the adaptation of appropriate computer tools to support management decision by the National Grains Authority, the Department of Agriculture and other agencies concerned with grain policies.
3. Active program assistance in the implementation of the planned NCA Grain Service Center Program.

It is further recommended that serious consideration be given to any request for capital loan assistance that may be needed at a future date to help support the NCA Grain Service Centers, and the utilization of these centers for carrying additional national buffer stocks of grain.