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**RICE MARKETING AND SITUATION REPORT**  
**VIETNAM**

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RICE MARKETING AND SITUATION REPORT

VIETNAM

Deficit Area Requirements	1968-1970;	Projections 1971
Surplus Area Availability	1967-1970;	Projections 1971
Marketing Conditions and Restraints	1968-1970;	Projections 1971

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HIGHLIGHTS FROM THE RICE MARKETING AND SITUATION REPORT,  
PROJECTION FOR 1971

by

William J.C. Logan and William F. Doody  
(January, 1971)

- A. The Accelerated Rice Production Program reversed a declining trend in domestic production and in 1971 returned the country to virtually self-sufficient levels of national rice availability. Rice imports currently scheduled for arrival during 1971 total 97,000 tons, about 2.8% of national rice availability or 11.8% of deficit-area requirements. Imports represented 28% of national rice availability in 1967, 22% in 1968, 12% in 1969 and 18% in 1970.
- B. Production has progressed at different rates in the four agricultural regions. The traditionally surplus Delta region achieved increasing supply of surplus rice; the traditional deficit areas achieved different levels of increased production and this has served to decrease requirements for shipping rice to supplement local production. (See pages 1-9 and associated tables)
1. Total deficit area requirement for rice to supplement local production in 1971 is estimated to be 819,000 tons. Of this total volume, 97,000 tons of PL 480 rice has already been scheduled for delivery in 1971. There remains a need to acquire an additional 722,000 tons from a) Delta deliveries, b) the remaining balance of 100,000 tons in the current PL 480 agreement, or c) further import agreements. (See pages 6-9 and associated tables).

2. If the 722,000 tons required in 1971 to supplement deficit area production were obtained from 1971 Delta supplies, this would leave approximately 1.9 million tons of rice remaining in the Delta for local use. This balance remaining in the Delta would be 4.5% less than was available in 1970 but it must be remembered that the Delta area currently has carryover stocks from 1970 availability. A 1.9 million ton balance in the Delta during 1971 would represent a 15.4% increase over the 1969 balance.  
The report indicates that Delta surplus areas could physically provide the additional 722,000 tons needed to supplement deficit area production while at the same time leave a reasonable supply of rice in the Delta for local use. (See pages 9-12 Tables D 1-2)
3. The benefits from achieving the above level of self-sufficiency in 1971 are obvious. If Delta deliveries are less than 675,000 tons of rice in 1971, stocks remaining in the Delta will reach record levels.
  - a. If 1971 Delta deliveries are only 564,000 tons (the 1963-65 average), stocks remaining in the Delta will be 20% greater than were available in 1966 through 1969 and 5% greater than in 1970.
  - b. If 1971 Delta deliveries are only 309,000 tons (the 1966-69 average), stocks remaining in the Delta will be 34% greater than were available during 1966 through 1969 and 17% greater than were present in 1970.

The implication here is that as a result of achieving production goals during 1970/71 there is an opportunity for supplying 722,000 tons of Delta surplus rice to deficit areas during 1971 ... and there is an economic necessity for doing so. If 1971 surplus rice is not moved from the Delta, it is almost certain that excess stocks will force prices to break during 1971 and that low prices would pose a disincentive to producers to plant the June-August crop that is scheduled to contribute self-sufficiency in 1972.

Increasing Delta deliveries from 1970 levels to 722,000 tons in 1971 would provide an additional 11.7 billion piasters (\$42.8 million dollars) to Delta paddy producers. (Calculated at current prices)

C. Measures that would materially affect marketing and transporting a record level of Delta deliveries can be noted in the following key categories:

1. Prices paid to farmers: These prices increased steadily during 1968 and 1969. Wholesale prices paid for paddy at Delta mills in 1969 doubled during the year reaching a peak of 31-32 p/kg in November-December. Prices dropped to 25-30 p/kg during early 1971 and moved progressively downward through the year. The current price of 21 p/kg is 33% lower than 1969 peak prices and represents the first major reverse in annual prices in recent years.
  - a. Farmers consider current prices too low to encourage sales. Farmers in five separate provinces stated they would begin to sell paddy at 25 p/kg.

A 25 p/kg price level may stir some sales activity but it is quite probable that prices may have to go higher during 1971 to withdraw 722,000 tons from Delta surplus (See pages 15-18)

- b. While prices paid for paddy doubled during 1969, the wholesale price for hogs decreased 5%; while prices paid for paddy dropped 15-20% during 1970, the wholesale price for hogs doubled.

Farmers who were reluctant in January 1970 to convert paddy at 27 p/kg into pork at 140 p/kg changed their views when paddy dropped to 20 p/kg and wholesale hogs were 310 p/kg. When TN-8 prices fell below 20 p/kg to a September-December level of 16 p/kg, large volumes were probably diverted to livestock feed.

If rice prices in relation to pork prices make a cheap livestock feed in 1971, three results seem probable. (1) Farmers will divert paddy to livestock, (2) Delta deliveries will be restrained and (3) the sorghum feedgrain program will be challenged. It may appear desirable to increase rice production goals for 1971/72 to allow for increased livestock feed. (See pages 16-18)

2. Commercial bank loans to millers: These are made for four-month periods and have interest rates that were 9% in 1968, 13% in 1969, and most of 1970 and are currently set at 20%. Interest paid on time deposits is also pegged at high levels, a factor that will play against achieving a decrease in the interest rate on loans in the near future.

The implication here is that commercial money will be expensive and tight during the same period when necessity calls for doubling the rate of monthly Delta deliveries and drawing 722,000 tons of rice from surplus stocks.

GVN official purchases of rice were 20% of Delta deliveries in 1968 and 1969. To support falling prices in 1970 and achieve high delivery rates, the government increased its share of total purchases to 40%. If millers do not have significant capital in 1971 to help achieve record delivery rates, the government's share in marketing may approach considerably less than the total 722,000 tons required. Such a possibility could be lessened by influencing the supply and interest rate of money available to the commercial sector. (See pages 16 and 22)

3. Business transactions:

- a. Deficit area: Subsidizing resale of rice acquired by GVN has influenced both production and consumption of rice in deficit areas. It has also influenced marketing. Commercial wholesalers are allocated quotas of rice they can provide to retail outlets. Wholesalers and retailers move rice at fixed prices and are allowed a 3% profit plus reimbursement for transportation costs. Such a system does not require commercial dealers to negotiate prices or seek domestic sources of supply; the prices are fixed by the government - as is the profit - and the government schedules delivery of rice to ports in adequate volumes on a timely basis. Thus, (1) wholesalers depend on

government import supplies rather than commercial domestic sources (2) consumers with ration cards have access to stocks priced artificially below local stocks and (3) commercial dealers in the Delta and Saigon are discouraged from trying to compete against the established system.

b. Surplus area: Transactions follow one of two paths:

(1) Commercial - Rice is delivered by truck or barge to Saigon dealers who pay for "shipment number one" upon delivery of "shipment number two" and "shipment number two" upon delivery of the third shipment. This keeps Delta suppliers dealing with traditional Saigon buyers, (2) Government - the government pays 80% of value at the time of contracting and 20% upon delivery or later. "Later" has been delayed as much as four months, but this is not typical.

To help withdraw 722,000 tons from the Delta in 1971, it appears necessary to promote effective commercial relations between deficit area dealers (who now get supplies from the government's official and imported stocks) and Delta millers and merchants who have access to currently available domestic surplus rice ... but who have no contact with deficit area buyers.

Several Delta merchants said they wanted to sell rice to MR-1 and MR-2 but (a) had no experience, (b) did not know how to arrange sales, and (c) had no commercial contacts or friends in the deficit area. Some claimed that despite GVN order 382 of September 23, 1968 movement of rice out of their province was denied by provincial

officials or that shipments were turned away when delivered to deficit area ports. (See pages 19-22)

4. Transportation:

- a. Current equipment is probably adequate for supplying Saigon and MR-3 but there are not enough coastal ships to carry the volume of rice recently handled by foreign vessels arriving with cargoes of imported rice. The GVN in December agreed to release foreign exchange for purchase of three additional ships. These will be needed to supply MR-1 and 2 beginning in March, 1971. Without these vessels it becomes questionable whether adequate volumes can be shipped to northern ports. (See pages 23-24)
- b. The new deep-water docks at Vinh Long and Can Tho could probably permit loading 25,000 tons per month if roads connecting them to highways are completed and warehouse space made available. Deliveries without these ports averaged 33,000 tons per month in 1970; with these docks in operation deliveries of 58,000 tons a month seems reasonable. Deliveries of 60,000 tons a month are required to achieved the 722,000 tons goal for 1971. (See pages 25-26)

Recommendation: Statistical Service Data Systems

1. Comment and statistical data describing the period 1966-1970 may be regarded as factual and generally accepted by those who work on rice problems in Vietnam. The projections for CY 1971 must be revised on a regular basis to supply GVN and USAID officials with information and data which they can use

to appraise current development and anticipate needed policies. Tables N-1 and O-1 present an improved method for serving this goal.

Discussions with John Pruden, Chief of the Information Service Center, and Gordon Butler, Deputy Chief of ISC, indicate willingness to make computer time available to help monitor the rice production and marketing system. This would be a significant contribution toward our ability to project future consequences of regional changes in price, production and deliveries and to anticipate problems requiring policy decisions.

A description of how the ISC can serve these needs and the format for presenting data to the ISC is described in USAID Order Number 31.3 (Automatic Data Processing Support) dated August 27, 1970. Messrs Pruden and Butler recommend that responsible parties consult with Mr. Richard Keefer, ADP Programmer, to determine specific aspects of their 12 point proposal process before submitting an official request for service.

2. Based on our experience analyzing Vietnam rice data, we feel there is a distinct need to refine reports describing current and projected rice planting and harvesting statistics. Current reports present results of a split crop year (i.e., the current crop is 1970/71) and all varieties of rice and seasonal production results are presented as one final figure. But rice is actually being planted or harvested throughout the year and different

varieties require different periods of growth. Under the present reporting system, it is not possible to determine when portions of an annual crop are beginning to reach markets. Thus, it is impossible to refine supply projections or determine causes of price changes.

We therefore recommend that future rice statistics report first crop, second crop and third crop; that areas planted and harvested reflect traditional varieties and TN varieties; that this data be presented according to USAID pattern of MR-1, MR-2, and others as well as according to the GVN method of Southern Region, Central Lowlands, etc... or resolve which system presents superior information.

The Agricultural Yearbook for 1966 indicates that statistics have been maintained on a first/second crop basis in the past. We believe that the format presented on page 33 of that report could be modified to serve current needs.

## INTRODUCTION

This report is intended to be the first of a series of 1971 rice reports summarizing current progress and problems in deficit-area rice requirements, regional production and national marketing. The purpose of these reports is to provide GVN and USAID officials with a continuously updated source of information and data upon which they can appraise current developments and anticipate needed policies.

As the first report in the 1971 series, this report will summarize gross changes in production, utilization and marketing of rice during 1968-1970 and present projections for 1971. Please note the following two points:

1. Comment and statistical data describing the period 1966-1970 may be regarded as factual and generally accepted by those who work on rice problems in Vietnam. This material is presented here to provide readers with a single document containing information usually obtainable only from a wide variety of sources. This section draws together data from many separate offices reporting on rice conditions and presents a unified base for appraising future developments.
2. Projections for 1971 are based on analysis of information available in December 1970 and January 1971. These projections will need to be modified during 1971 as new information becomes available or when actual performance within the marketing system differs from the projections submitted in this report. It is essential that these projections be continuously revised.

The authors wish to commend Col. Doan Ba Tri of the Ministry of Economy, Mr. Nguyen Tran Thach of the Agricultural Economics and Statistic Service, Ministry of Land Reform, Agriculture and Fishery Development, and Mr. Donald McConville of the USAID Sector Analysis Branch for their cooperation and assistance in making this study. To a large extent this report reflects discussions and conclusions reached while working together.

## DEFICIT AREA RICE REQUIREMENTS

### GENERAL SITUATION: 1965-1970

Vietnam's Accelerated Rice Production Program has been eminently successful in reversing a declining trend in national production and leading the country toward self-sufficiency. When attained, self-sufficiency will eliminate the need for importing large quantities of rice to meet annual domestic deficit area food requirements. Import of milled rice during 1965-1970 totaled nearly 3 million tons, a volume of rice comparable to Vietnam's harvest from the 1969/70 paddy crop.

Rice production in Vietnam's adjacent geographic regions has progressed in significantly different ways. This has been due primarily to differences in basic production assets held by different geographic areas and the way in which the war disrupted conditions within these separate agricultural regions. Total national production of rice paddy since 1967/68 increased by one million tons, but nearly 80% of the total increase took place within the traditionally surplus Delta region. Production in MR-1 - a war area that is also characterized by traditionally low agricultural yield - declined in recent years and was only restored to 1967/68 production levels by the 1970/71 harvest. Thus, although small, MR-1 remains a major deficit rice area while the Delta has increasing production of surplus rice.

Production in MR-2 increased steadily and current production is 33% higher than when the Accelerated Rice Production Program began. This region continues to require transshipment or importation of rice, but the volume of rice required to supplement local production is decreasing.

Production in MR-3 (not including Long An Province, which has been included in MR-4 data in this report) dropped below 1967/68 production levels for two consecutive harvests but made strong recovery in 1970/71. The current regional harvest is 12% - 21% higher than the two previous harvests. Thus, the need for shipping supplemental rice to this region was high during 1968-70 but is now decreasing.

Changes in regional deficit area annual rice production has had consequent change in altering the volume of rice these separate regions require to meet annual rice requirements. By noting the pattern of changes in rice production and import requirements during 1968-1970 in each of the three traditional deficit regions, it becomes possible to estimate the probable volume of milled rice each separate region will require to meet local food needs in 1971. Since the size of the local paddy crop from which these regions will obtain the major portion of their total 1971 rice requirements is already known, a projection of the amount of supplemental rice required for CY 1971 should be relatively easy to calculate. This can be projected for each of the deficit areas.

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MR-1 stands for "Military Region", previously termed "I Corps" or "I CTZ". MR-2, MR-3, MR-4 follow the same pattern.

The basis for making such a calculation can be found in the following attached tables:

Rice Production

	<u>TABLE</u>
Rice Production and Supply MR-1: 1966/69 - 1970/71 .....	A 1-2
Rice Production and Supply MR-2: 1966/67 - 1970/71 .....	B 1-2
Rice Production and Supply MR-3: 1966/67 - 1970/71 .....	C 1-2
Rice Production and Surplus Shipments MR-4: 1966/67 - 1970/71 .....	D 1-2

Rice Movements

Volume and Source of Delta Deliveries: 1959-1970 .....	E 1-3
Annual and Monthly Rice Imports by Port or Arrival: 1968-1970 .....	F 1
Domestic Transshipments: 1968-1970 .....	G 1-3 to I 1-2

Deficit Area Requirements

Annual Stock Balance MR-1, MR-2, Saigon + MR-3: 1970 .....	G 1-3
Annual Stock Balance MR-1, MR-2, Saigon + MR-3: 1969 .....	H 1-3
Annual Stock Balance MR-1 + MR-2, Saigon + MR-3: 1968 .....	I 1-2

Summary Tables

Regional Annual Stock Balance Summary: 1968-1970 .....	J 1
Regional Stock Balance Averages: 3 YR, 2 YR, 1 YR .....	K 1
Average Deficit Area Requirements, Current Increased Deficit Area Production, Apparent 1971 Rice Requirement.....	L 1

Actual Deficit Area Rice Requirements: 1968-1970

Table J-1 shows that in 1968 the deficit areas required a total of 1.6 to 1.7 million MT of rice somewhere within the deficit area rice system to satisfy total requirements. The source of this volume of rice in 1968

derived from local production (590 to 708 thousand tons<sup>1/</sup>) plus imports (668 thousand tons) plus Delta deliveries and beginning stocks (320 and 153 thousand tons) minus ending stocks (107 thousand tons).

Using the same methodology, it appears that the deficit regions required 1.5 to 1.6 million tons of rice in 1969 and 1.5 to 1.6 million tons somewhere in the total deficit area system again in 1970 to satisfy total deficit area rice requirements.

The total volume of rice required to satisfy annual local requirements in the deficit areas during the period 1968-1970 was almost identical for each of the three years considered. Using the 60% rate to convert paddy to rice, requirements were 1.6 million tons in 1968 and 1.5 million tons in both 1969 and 1970. The difference represents a decrease of about 1.0% in annual deficit area requirements between 1968 and 1969 and an increase of only 0.25% in total requirements between 1969 and 1970. Since records substantiating the basic data used in compiling these tables were obtained from a series of separate sources which independently maintained monthly records during a 36 month period, it does not appear likely that any manipulation of data was purposefully introduced to distort the balances in Tables J-1 and K-1. It is important to note that data over such a long period and from such diverse sources presents an almost identical conclusion when compiled as shown in these tables.

1/ Paddy production for the 1967/68 crop is a firm figure but the amount of rice resulting from any paddy harvest must be treated as a range. Note the following considerations: (1) The rate for milling paddy into rice is generally estimated to be 60% in Vietnam. Some claims it is as high as 65%. But (2) evidence in the Wildman Report (Grain Storage and Marketing System, Vietnam) page 203 and in the Agriculture Sector Analysis

One would expect to notice a much different trend, a trend which would reflect an increase of 2.6% per year in total requirements to account for population increase. Three answers to this apparent dilemma may satisfy some readers:

1. With increasing security during 1968-70, refugees returned to remote production areas at a faster pace than did statistical enumerators. Thus, these people posed a true but unrecorded reduction to calculated rice stock disappearances while at the same time started to grow rice that did not appear in official production records.

2. Increases in security may indicate absolute decreases in VC troops ... troops that probably obtained rice supplies from local sources.

3. Price increase outpaced rises in consumer income and people are now consuming slightly less rice than previously ... or increased availability of vegetables, pork and poultry diverted money from traditional rice purchases.

It is not possible to resolve this matter in this paper, but readers should be aware of the issue. The data merely reports a variance of 1% in total annual rice requirements from all sources during the three year period 1968-1970 and this appears to be a remarkably narrow interplay between changes in local production, imports, transshipments, Delta deliveries and differences between beginning and ending stocks. Table J-1 thus warrants careful scrutiny by all planners.

These tables also provide specific data for each separate deficit region. Thus, it becomes possible to note how changes (- or +) in regional deficit production have a consequent change (- or +) in requirement for importing foreign rice or transshipping domestic rice. When changes in

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Con't. 1/ page 4

Report for Vietnam, pages 144-149, indicate that the amount of rice going to human consumption should be calculated at 49-51% of paddy production. Thus, a range based on 60% and 50% has been used in this report to satisfy advocates of both positions.

beginning and ending stocks are also accounted for, it becomes possible to deduct current production (i.e., the 1970/71 crop which has not yet been consumed) from typical total requirements in a previous period and project an estimate of 1971's probable level of deficit area supplemental rice requirements.

Table L-1 does this and provides three alternatives:

A. If the current 1970/71 deficit area crop had been supplied to average total requirements during 1968-1970 (3 years), there would be a need for importing or obtaining from Delta surplus supplies an additional 748-766 thousand tons of rice.

B. If the current 1970/71 deficit area crop had been supplied to average deficit area requirements during the past two years, there would be a need for obtaining an additional 696-715 thousand tons to meet total deficit area requirements.

C. If the current 1970/71 crop produced in the deficit area were subtracted from total deficit area requirements of last year, there would be a need for obtaining an additional 819-831 thousand tons of rice to satisfy deficit area requirements.

Following is a summary of the above total deficit area requirements derived from Table L-1. The amount of PL 480 rice already scheduled for delivery during 1971 has been deducted from these totals in order to identify the remaining volume of rice that would have to be obtained from current Delta surplus production or from imports in order to equal one of the above series of average requirements.<sup>1/</sup>

<sup>1/</sup> A balance of 100,000 tons in a current PL 480 agreement is available for delivery in 1971 but has not yet been scheduled for delivery. This volume is not considered above or in Table L-1, but is considered elsewhere.

Assume: Previous Annual Deficit Area Requirements Minus Current 1970/71

Rice = Apparent 1971 Requirement For Supplemental Rice Shipments.

	<u>000 Tons Rice</u>	
	<u>Total Deficit Area Requirement</u>	
A. Average 1968-70 deficit requirements .....	1637	1524
1970/71 deficit area rice production .....	-792	-661
	845	863
Current import schedule .....	-97	-97
Remaining deficit requirement 1971 <sup>1/</sup> .....	748	766
 B. Average 1969-70 deficit requirements .....	 1585	 1473
1970/71 deficit area rice production .....	-792	-661
	793	812
Current import schedule .....	-97	-97
Remaining deficit requirement 1971 <sup>1/</sup> .....	696	715
 C. 1970 deficit area requirements .....	 1611	 1492
1970/71 deficit area production .....	-793	-661
	819	831
Current import schedule .....	-97	-97
Remaining deficit requirement 1971 <sup>1/</sup> .....	722	734

Maximum range of 1971 deficit area additional requirements: 748-766 tons<sup>1/</sup>  
Probable range of 1971 deficit area additional requirement: 722-734 tons<sup>1/</sup>  
Minimum range of 1971 deficit area additional requirements: 696-715 tons<sup>1/</sup>

<sup>1/</sup> This is the amount of rice that would have to be obtained from either Delta deliveries, or arrival of the 100,000 ton balance in the current PL 480 agreement, or negotiating future imports.

As a result of talking to advisors in various provinces and regional offices, the authors tend to support alternative "C" in the previous table. Thus, the authors suggest that the total volume of rice needed during 1971 to supplement 1970/71 harvests in the deficit areas is 819 to 831 thousand tons of milled rice. Since 97 thousands tons of PL 480 rice have already been scheduled for delivery during 1971 to deficit areas, there remains a need to acquire an additional 722 to 734 thousand tons from foreign imports or Delta deliveries to satisfy total deficit area rice requirements in CY 1971.

Table M-1 shows how this suggested volume of additional rice would serve to meet projected total requirements for rice in the deficit areas during CY 1971. Note also that Table M-1 shows that delivery of 722-734 thousand tons of rice would tend to duplicate supply conditions that served to satisfy CY 1970 requirements even though production and import totals between the two production years are considerably different.

Table N-1 shows actual monthly flows of milled rice through the three deficit regions during CY 1970. Table O-1 projects how the 97 thousand tons of PL 480 rice already scheduled for delivery in 1971 plus the suggested volume of 722 thousand tons of supplemental rice would serve to duplicate 1970 monthly supply conditions for MR-1, MR-2 and Saigon plus MR-3 in CY 1971. It should be noted that the 1971 projection accounts for (1) annual change in production and requirements and (2) allows for reasonably high levels of 1971 carry-in and carry-out stocks.

The authors believe that Tables N-1 and O-1 (monthly 1970 and 1971 stock flows for each of the three separate regions) present a new and highly informative approach to appraising current developments and projecting future requirements. It is hoped that these tables will provide a useful tool for GVN and USAID officials responsible for monitoring rice flows and developing rice policies. Naturally, these tables must be continuously updated if they are to serve as a vital key to planning.

### Rice Supplies From Surplus Production Areas

#### General Conditions: 1967-1970:

The surplus rice production area in Vietnam during recent years has typically been comprised of the sixteen Delta provinces of MR-4 plus Long An Province in MR-3. During the past four production years, 1966/67 to 1969/70, these seventeen provinces retained approximately 84% of total production for regional use and shipped 16% out of the region as surplus.<sup>1/</sup> Tables D-1 and D-2 show total production in these provinces and the proportion and total annual volume of rice shipped as surplus (i.e., "Delta Deliveries").

Tables E-1 through E-3 identify monthly surplus shipments during 1968-1970 and total annual deliveries by province as well as the proportion of total Delta deliveries deriving from each province. Interesting to note

<sup>1/</sup> Peak Delta deliveries of 735,000 tons in 1963 represented 31% of 1962/63 production; 69% of the crop was retained for local use.

is the fact that two provinces (Ba Xuyen and Bac Lieu) provided 51% of total Delta deliveries in 1969 and only 33% in 1968 and 1970.

In 1968 and 1969, five Delta provinces <sup>1/</sup> provided over 75% of total annual Delta deliveries. In 1970, deliveries from these five provinces dipped to 67% of total deliveries (-8%) as previously marginal surplus provinces achieved harvests that were increasingly in excess of local requirements. The implication here is that the benefits from the Accelerated Rice Production Program have spread widely throughout the Delta and have brought previously marginal suppliers of surplus rice into greater significance as sources of national supply. It is not known whether marketing facilities or arrangements have increased in these previously marginal provinces in proportion to their production increases.

Two important points should be made concerning Delta deliveries:

1. Peak Delta deliveries during 1963-1965 ranged from 449,000 to 735,000 tons, 20-31% of total production, and the amount retained during these three years for local use in the Delta averaged + or - 125,000 tons from an average use of 1,759,000 tons. In the four following years (1966-1969) Delta deliveries averaged 309,000 tons, about 15% of production, and the amount of rice retained for local use averaged + or - 100,000 tons from an average use of 1,710,000 tons.

Thus the amount of rice shipped as surplus during 1966-1969 was smaller in absolute size as well as a proportion of total production than in 1963-1965. Also, the average amount of rice retained for local use in the Delta declined by nearly 50,000 tons between the period 1963-1965 and 1966-1969.

2. Delta deliveries during 1970 were 397,000 tons, about 17% of production, and shipment of this volume out of the Delta left a balance of 1,960,000 tons of rice for local use. The amount retained for local use in 1970 was 250,000 tons higher than the 1966-1969 averaged and 303,000 tons higher than in 1969 alone.

1/ Ba Xuyen, Bac Lieu, Dinh Tuong, Kien Giang and Long An

The implication here is that even though 1970 Delta deliveries were 90,000 tons higher than average deliveries during the preceding four years, a disproportionately large volume of rice remained in the Delta for local use in 1970.

This last observation requires clarification and it is unfortunate that data concerning this issue is relatively poor. All that can reasonably be stated about the disproportionately large volume of rice that remained in the Delta is that it far exceeded the amount that would be required as food for population increases. Visits with Delta millers did not indicate large stocks of rice and it must be presumed that (1) Delta farmers now have larger than normal stock carryovers and that there is therefore a large total Delta stock carryover from the 1969/70 crop year into the current and even larger 1970/71 crop year, or (2) livestock producers absorbed a large portion of this excess supply and that livestock marketings in 1971 will show a considerable increase.<sup>1/</sup> A reasonable judgement would state that both factors were at play during 1970 and that rice carryover stocks into 1971 from the 1969/70 crop are a reasonably small factor. Personal judgement indicates a carryover of probably 100,000 tons of the 1969/70 crop into 1971 and that this is probably being held on farms.

Regardless of whether there is any carryover of 1969/70 rice stock into CY 1971, it is important to note whether total deficit area CY 1971 requirements could be extracted from the current crop without leaving a disproportionately low balance of rice remaining for local use.

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<sup>1/</sup> See footnote, page 19

Below is a comparison of actual production and deliveries for three consecutive crop years.

	A	<u>1/</u> B	C
	<u>1968/69</u>	<u>1969/70</u>	<u>1970/71</u>
<u>Rice</u>			
Production (60%) .....	1,986,120	2,356,800	2,598,600
Delta deliveries .....	<u>- 328,907</u>	<u>- 397,348</u>	<u>- 722,000</u>
Balance remaining			
for local use .....	1,657,213	1,959,452	1,866,600
	(CY 1969)	(CY 1970)	(CY 1971)

Difference: A to B 302,239 (+ 15.4%); B to C -92,852 (-4.5%)

Thus, it appears that total deficit area requirements for 1971 could physically be extracted from the surplus Delta area without leaving a disproportionately low balance remaining for local use. Doing so, however, would require shipment of 60,000 tons of rice out of the Delta each month, a volume not matched since 1963. (See Tables E 1-3)

#### Economic Considerations: Rice Marketing and Transportation

The previous sections of this report presented substantial justification for the following two conclusions.

1. Increased production in the deficit areas plus scheduled arrivals of PL 480 rice in 1971 leave a balance of 722,000 tons of rice needed to meet local deficit area requirements in CY 1971. This volume of rice must be supplied from either (a) Delta deliveries, (b) the remaining balance of 100,000 tons in the current PL 480 rice agreement, or by (c) negotiating future import agreements.

1/ It must be remembered that carryovers from the 1969/70 crop year are believed to be larger than normal and considerably larger than during the preceding crop year.

2. Current increased production in the traditionally surplus Delta area could physically supply the full 722,000 tons required by the deficit areas while at the same time leaving a reasonable rice balance remaining in the Delta for local use.

Thus, if Vietnam could take advantage of its current available surplus in the Delta to supply the deficit regions, Vietnam would be virtually self-sufficient in 1971. The 97,000 tons of Pl. 480 rice scheduled for arrival in 1971 represents only 2.8% of total national milled rice supplies.<sup>1/</sup>

But whether Vietnam is able to take advantage of this situation depends to a large extent on marketing conditions and transportation facilities in operation during CY 1971. The benefits of achieving this level of self-sufficiency in 1971 are obvious (and must be achieved eventually); the consequences for not realizing this current opportunity are explained below.

1. If the 722,000 ton surplus currently available in the Delta is not shipped to deficit areas, a disproportionately large stock build-up will occur. Note in the following table how failure to extract 722,000 tons of rice will leave record volumes of stocks in Delta provinces:

	Actual Delta Rice Production	Actual Delta Rice Deliveries	Remaining Delta Rice Balances	↓ % of Harvest
	Actual	-000 tons-Actual		
1962/63	2344	735	1609	31
1963/64	2379	507	1872	21
1964/65	2246	449	1797	20
1965/66	2115	323	1791	15
1966/67	1872	282	1590	15
1967/68	2105	302	1803	14
1968/69	1986	329	1657	17
1969/70	2357	397	1960	17

<sup>1/</sup> Or 12% of total 1971 deficit area requirements for rice to supplement deficit area 1970/71 production.

	<u>Actual Delta Rice Production Actual</u>	<u>Delta Rice Deliveries</u> Projected	<u>Remaining Delta Rice Balance</u>	<u>% of Harvest</u>
1970/71	2599	722	1877	28
	2599	650	1949	25
	2599	550	2049	21
	2599	450	2149	17
	2599	350	2249	13
	(Recent 5 YR Ave.)	327	2272	13

2. Note also how the projected 1971 balances compare to the previous average rice balances that remained for local Delta use after deliveries were made.

<u>Period</u>	<u>Average Delivery</u>	<u>Average Balance After Delivery</u>	<u>1971 Balance As of % of</u>		
		-000- tons-	<u>A</u>	<u>B</u>	<u>C</u>
A 1963-1965 (3 Yr)	564 ← A	1759			
B 1966-1969 (4 Yr)	→ 309	1710			
C 1970 (1 Yr)	→ 397	1960			
1971 Projection	→ 722	1877	+ 7	+10	- 4
	→ 650	1949	+11	+14	0
	→ 564 ←	2035	+16	+20	+ 4
	→ 450	2149	+22	+26	+10
	→ 397	2202	+25	+29	+12
	→ 309	2290	+30	+34	+17

One can readily see that extracting 722,000 tons of available surplus rice from the Delta will achieve ..... (1) adequate supply for deficit area supplemental rice requirements and (2) preservation of economic conditions required by farmers to plant the late 1971 crop that is expected to assure Vietnam of self-sufficient availability of rice during 1972.

One can also note that if 1971 Delta deliveries fail to exceed 625,000 tons, record stock balances will remain unmarketed in the Delta. Should this happen, prices are likely to drop significantly and could reach levels that either (a) prevent producers from buying adequate volumes of fertilizer, pesticides, etc. (and thus reduce subsequent production), or (b) reduce farmer incentive to plant the hectarage required to achieve full self-sufficiency in 1972.

It should also be noted that marketing 722,000 tons of Delta rice (equal to about 1,200,000 tons paddy) would represent 26.4 billion piasters (\$96 million dollars) to Delta farm income at current farm prices of 22 p Kg for paddy. For each 100,000 ton increment of Delta rice deliveries less than 722,000 tons, deduct 3.7 billion piasters (\$13.4 million dollars) from Delta farm income.

It is not possible to predict whether Vietnam will actually achieve Delta delivery shipments of 722,000 tons or some lower rate in 1971; the consequence of doing so have been suggested in previous paragraphs. It does seem fairly well established, however, that a dramatic increase above 1966-1970 annual Delta delivery rates must be achieved in order to prevent Delta farm and mill stocks from blocking the regional marketing system.

Measures that could help achieve a high level of Delta deliveries seem to be in the following three categories: (A) price, (B) marketing arrangements and (C) transportation.

A. Price: This is truly a complex issue and one that is subject to a variety of interpretations. The following general observations might help planners, however.

1. Price changes have influenced farmer's incentive to sell. Prices paid for paddy during CY 1969 in Ba Xuyen Province, for example, advanced steadily from 12 p/kg in January to 32 p/kg in December, 1969. Ba Xuyen Province in 1969 increased its proportion of total Delta deliveries from 23% in 1968 to 32% in 1969.

Prices paid for Ba Xuyen paddy in 1970 opened in January at about 30-32 p/kg and then fell steadily during the year to 20 p/kg in December, 1970. Ba Xuyen's 1970 total shipments also dropped during 1970 to a level 30,000 tons (30%) below 1969 deliveries .... and its proportion of total Delta deliveries fell from 32% in 1969 to 19% in 1970. This occurred during a year in which Ba Xuyen production increased 6%.

Thus, price plays a very important part in moving surplus production from farms to mills and into market channels.

Changes in prices paid to farmers for paddy in Ba Xuyen are typical of price changes throughout the Delta. Prices dropped steadily by 15-20% during 1971 to a current farm price of 20-22 p/kg for paddy. Farmers in five Delta provinces stated in December that they would not begin selling paddy until prices returned to 25 p/kg for paddy. It was unusual that farmers in widely separated areas would each claim the need for a paddy price of 25 p/kg.<sup>1/</sup>

It is quite probable that effective GVN price policy and buying contracts during 1970 prevented prices from dropping even further and also

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<sup>1/</sup> Farmers in Long An Province in January 1971 are reported to be aggressively developing greater on-farm storage facilities to permit waiting for price

prevented Delta delivery rates from being exceptionally low. Note the following two points: (1) Delta delivery rates during January-August 1970 were 20% below January-August 1969 delivery rates even though the Delta crop increased 600,000 tons, (2) the GVN contracted for about 180,000 tons of rice during late 1970 and became the dominant buyer of Delta surplus rice. Commercial buyers during the previous two years had purchased 80% of total Delta shipments and the Government the remaining 20%. In 1970 the Government had to double its proportion of purchases to 40% of total Delta deliveries in order to assure rice supplies and preserve price.

It is quite likely that if record Delta deliveries are to be achieved in 1971, the GVN will again have to assume a leadership role in Delta markets. It is also quite probable that the Government will have to increase its prices paid for paddy or rice to acquire the volumes of rice that must be cleared out of the Delta. Acquiring the first few hundred thousand tons of Delta rice might be achieved by raising contract prices so that the price of paddy averages 25 p/kg. But it seems quite probable that prices must go even higher than 25 p/kg for paddy to acquire the fifth, sixth and seventh increment of 100,000 tons of Delta deliveries. And these volumes of rice must be brought out of the Delta to preserve the economic conditions required to maintain production self-sufficiency.

B. Price Ratios: Prices paid for paddy must also increase in order to prevent diverting rice and paddy from being used as livestock feed.

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Con't. 1/ page 16

changes. Long An deliveries last year dropped from 12 to 7% of total deliveries even though the crop increased 27%. The current crop is up another 12%.

During the twelve months of 1970, the price of paddy slid from January prices of 27-30 p/kg to December levels of 20-22 p/kg.

The price paid for TN-8 paddy appears to have followed this rate of decline during January-June 1970, but was discounted at a faster rate during July-December 1970.<sup>1/</sup> December prices paid to farmers for TN-8 paddy were as low as 16 p/kg in the Delta, about 25% below medium quality medium grade traditional varieties.

While prices paid for paddy, especially for TN varieties, dropped steadily during 1970, wholesale prices paid for hogs more than doubled from 14,000 piasters per 100 kg liveweight in January to 31,000 piasters in December. Farmers who were reluctant in January 1970 to convert paddy at 27 p/kg into port at 140 p/kg changed their views when paddy dropped to 20 p/kg and hogs were 310 p/kg. When TN-8 paddy prices dropped below 20 p/kg, large volumes were probably diverted to livestock feed.<sup>2/</sup>

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<sup>1/</sup> No records of farm or wholesale prices paid for TN varieties during 1968-1970 could be located in Saigon, regional headquarters or in separate provinces. This is a serious omission in CORDS, AESS and MOE reporting practices that makes appraising the Accelerated Rice Production Program a difficult task.

<sup>2/</sup> We predict that the hog prices that doubled during 1970 should level in early January, 1971 and then begin a steady decline as large numbers of 1970 feeder pigs begin coming to market in the first quarter of 1971.

If prices which make rice appear as cheap livestock feed continue to remain at low levels in 1971, three conditions will probably result: (1) Farmers will earn more money by feeding paddy to hogs than by selling it for human consumption,<sup>1/</sup> (2) Delta deliveries will be restrained, (3) the sorghum feedgrain program will be challenged and use of corn decline. With corn and sorghum selling above 25 p/kg, paddy now appears to be a remarkably cheap livestock feed.

C. Marketing Opportunities: The resale price of PL 480 rice in Central Vietnam was relatively close to other rice prices during most of 1969 but the margin widened in late 1969 and 1970 as the price of domestic rice increased. The price of PL 480 rice was kept at a low rate for most of this period to provide a subsidy for civil servants and families of soldiers who had access to rice ration cards (12 kg/month per person). The October, 1970 increase in government rice price did tend to bring rice prices in Central Vietnam in line with Saigon prices, but local rice in CVN remained higher than PL 480 rice prices there. Thus, dependency

<sup>1/</sup> Caution should be used in developing ratios to indicate when it is advantageous to feed paddy to hogs. Dr. Bui Van Tro, USAID livestock nutritionist and authority on livestock conditions, advises that a) hogs can not be raised on a diet consisting of 100% paddy, rice or bran .... 60-65% is probably the maximum proportion that can reasonably be tolerated and (b) the remaining 35-40% of the hog diet fed by "average farmers" would consist of garbage, vines, roots, etc. The feed conversion ratio of this diet might range from 6-8:1. Thus, a hog/paddy ratio would have to consider these feed proportions and establish whether the above garbage, vines, roots, etc. have a value, i.e.; represent a cost. If hog feed with a 6:1 gain ratio (3.6 kg paddy, 2.4 kg other ingred.) is used, each 100,000 tons of paddy would feed 278,000 hogs to market weight. Delta production increased 618,000 tons between 1968/69 and 1969/70 and another 403,000 between 1969/70 and 1970/71. Delta deliveries of rice did not increase in proportion to production increases.

on US supplies continued and discouraged transshipment of domestic rice from Saigon or the Delta.

Commercial wholesalers of official rice stocks are allocated quotas of rice that they can provide retail outlets. In Danang, for instance, there are 37 wholesale dealers who obtain allocations of government rice from official stocks. These 37 dealers supply 250 retail outlets with supplies. Each dealer is allowed to earn 3% profit for such transactions and they replenish their official stocks on an average of every two weeks. Thus, if a dealer's fixed allotment of rice that he turned over every two weeks had a value of \$1000, his progressive 3% profit would leave him with \$1780 at the end of the year. This sort of business practice does not require dealers to negotiate prices or seek domestic sources of supply; the prices are fixed by the government - as is the rate of profit- and the government schedules delivery of rice to ports in adequate volumes on a timely basis. The dealers are reimbursed for transportation costs between port facilities and warehouse.

Controlling deficit area supplies and prices in this way appears to produce the following results: (1) wholesalers depend on GVN imported sources of supply rather than commercial domestic sources, (2) consumers with ration cards have access to stocks that are priced artificially below local stocks and (3) commercial dealers in the Delta and Saigon are discouraged from trying to compete in supplying deficit-area supplemental rice requirements. It seems likely that this deficit-area system will have to be changed somewhat to promote taking advantage of the surplus

rice currently available in the Delta. In fact, to move the 722,000 tons of Delta rice needed to satisfy remaining 1971 deficit area requirements, it will be necessary to promote direct commercial relations between deficit-area dealers (who now get supplies from official stocks) and Delta millers and merchants who have access to currently available domestic supplies ... but no contact with deficit area dealers.<sup>1/</sup>

D. Delta Marketing Opportunities: Interviews with millers and merchants in the Delta during December, 1970 indicated that they would very much like to ship rice to the deficit areas.

Their current Delta delivery business follows one of two paths:

(1) Commercial transactions require delivery of rice by truck or barge to Saigon dealers, and millers are paid for "shipment number one" upon delivery of "shipment number two". This tends to keep millers dealing with traditional Saigon buyers, for alternative commercial buyers would duplicate this "fly now, pay later" scheme, (2) Government transactions provide for payment of 80% of value at time of contracting shipment and the remaining 20% upon delivery or later. There are deductions made from the 20% for delivery later than scheduled in the contract.

But millers claim they are not buying much paddy (December, 1970) for two reasons: (1) the paddy they hold was purchased during a year when prices declined and they are reluctant to sell now when prices are low and (2) bank loan rates have increased recently and they must get a higher

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<sup>1/</sup> Several Delta merchants said they wanted to sell rice to MR-1 and MR-2 but (1) they had no experience (2) did not know how to arrange sales and (3) had no commercial contacts or friends in the deficit area.

price now in order to make reasonable profits ... or have incentive for acquiring new purchases of paddy.

Commercial bank loans to rice millers are made for four month periods. The interest rate for these loans was 9% in 1968, 13% in 1969 and most of 1970, and is currently at 20%. Since interest paid on time deposits is now 10% for the first month, 11% for 1-2 months, 14% for 3-6 months, 16% for 6-9 months, 18% of 9-11 months and 20% for longer periods... it appears that the interest rate on loans available to millers will remain high during 1971. The implication here is that commercial money supply will be tight during the very period when we hope to double the rate of monthly Delta deliveries and draw a total of 722,000 tons of rice from this surplus area during 1971. Thus, it seems apparent that the government will have to (a) assume the burden for acquiring as much as 484,000 tons<sup>1/</sup> of Delta surplus through government funded contracts or (b) influence the availability of commercial loans so that millers will be able to participate in commercial dealings at a better pace than in 1970.

E. Transportation: Surplus rice moves from the Delta to Saigon warehouses by truck or barge. These are recorded at official check-points supervised by GVN officials and shipment arrival figures are forwarded to the Ministry of Economics for recording. This is the source of official estimates of Delta deliveries. Actual deliveries might be slightly higher than official figures due to the fact that carriers with less than  $\frac{1}{2}$  ton of rice or paddy

<sup>1/</sup> This is an estimate based on subtracting the portion of total 1970 Delta deliveries handled by commercial dealers (232,000 tons) from the 1971 target of 722,000 tons.

are not recorded at the check-points. There are no estimates of the number of such small shipments that pass by unrecorded, but they would pose contributions to commercial stocks only. Government purchases and deliveries are usually made in much larger volumes by barges or truck convoys.

There has been only very limited shipment of rice directly from the Delta to deficit areas (i.e., by-passing Saigon). This is partially due to shortage of coastal vessels. Thus, most rice is brought to Saigon by canal barges capable of carrying 200-600 tons or trucks that resemble the standard Army  $2\frac{1}{2}$  ton truck. Rice arriving in Saigon is 1) off-loaded at warehouses for local use or shipment to deficit areas later, 2) delivered to coastal vessels for shipment to MR-1 or MR-2 ports, or 3) trucked to Saigon markets and surrounding MR-3 deficit provinces. Barges and coasters do not supply MR-3.

This system has worked with considerable efficiency during periods of strife as well as during relatively secure current conditions. Most rice arriving from the Delta in Saigon is used in the adjacent area and MR-3. Some does get transhipped to MR-1 and MR-2, but these deficit areas have port facilities that are more easily serviced by larger ships arriving in Vietnam with imported rice.

With the prospect of achieving self-sufficiency in the near future, it becomes important to determine whether the rapidly increased need for surplus Delta rice volumes could be handled by existing transportation facilities.

The amount of rice required to supplement production in MR-3 and the greater Saigon area probably could be delivered by existing equipment. More careful scheduling of trucks and barges would be required, but informants advise that this should not pose a severe problem.

The volumes of rice needed by MR-1 and MR-2 pose a different problem. Although security conditions along delivery routes between the Delta and MR-2 and MR-1 are considered good, it might be an inappropriate risk to rely on servicing these areas by truck. Also, knowledgeable people advise that shipping by coastal vessels would be cheaper.

Although there is a shortage of coastal vessels in Vietnam now, the Government in December agreed to allocate foreign exchange for purchase of three appropriate vessels. Table O-1 projects that MR-1 and MR-2 will require shipment of 20,000 tons in March 1971 and about 40,000 tons a month during April-July. Monthly requirements will decrease to 30,000 tons a month for the remainder of the year. It appears certain, however, that the three vessels the GVN intends to purchase will need to be in service by late March or early April, 1971. Without these vessels it becomes questionable whether adequate supplies could be delivered to Danang, Qui Nhon, Nha Trang and Bangoi.<sup>1/</sup>

F. Delta Loading Facilities: Servicing MR-1 and MR-2 rice requirements will require shipment of rice directly from MR-4 to MR-1 and MR-2.

<sup>1/</sup> Mr. Clifford Frink, Deputy Assistant Director, ADCCA/IOG (USAID extension 5721) is an authority on coastal vessels, shipping requirements and port facilities. He is quite familiar with progress being made in obtaining the three vessels.

Trying to funnel total deficit area requirements through Saigon would put a strain on warehouse space and tend to unnecessarily congest docks and highways. Also, it would increase costs due to extra loading and unloading of stocks.

Two new deep-water docks were recently completed in the Delta but will require additional work before being able to be used for shipping rice. These were visited during the holiday season and it was difficult to obtain extensive information about these facilities. It was mentioned, however, that they were built in 1969-70 to assist rice shipping but that no rice had yet been moved from these docks. It is believed that shipping a total of 25,000 tons or more a month from these docks would be possible and that appointing a port authority to supervise loading and give priority to rice cargoes would greatly assist achieving 1971 Delta delivery goals of 60,000 tons a month. Without these docks in operation during 1970, Delta deliveries averaged 33,000 tons a month; with these docks being able to handle an additional 25,000 tons a month, it appears that Delta deliveries of 58,000 a month would be quite possible. Whether these docks can truly handle 25,000 tons a month should be rechecked with officials.

Following is a brief description of the facilities and a description of work that apparently needs to be done to make them serviceable.

Dock No. 1 is located approximately five miles outside Can Tho in the new Industrial Park. Water depth at the face of the dock measured 18 feet during an incoming tide; marks on pilings indicated an additional two feet of water depth at high tide.

There was no commercial activity at this facility and several fishermen stated that it was virtually unused. US sailors repairing a boat nearby stated that the ARVN planned to use it for supplies.

The dock is connected to the major highway that runs through Can Tho by a  $\frac{1}{2}$  mile "pressed earth" road which showed little evidence of use. This road did not appear capable of tolerating commercial traffic and would have to be replaced before rice could be trucked to the dock.

Also, there were no sheds, covered areas, warehouses or any other buildings in the area that could be used to store or protect cargoes.

Dock No. 2 is located very near the center of Vinh Long city and is only 150 yards from a main highway. On December 16 US Army Engineers and RMK technicians were delivering gravel, etc. by truck to construct a link between this highway and this dock and were also discharging supplies from two barges. Informants stated that in the absence of any apparent use of this facility, they had decided to use it to move their supplies.

The Vinh Long dock appeared to be superior to the Can Tho dock and could probably be used to ship rice immediately. It was not possible to determine whether there were adequate warehouse facilities or commercial buyers of rice in the area.

Efficient use of these docks <sup>1/</sup> during 1971 could significantly improve the Delta's ability to supply increased rice deliveries to Saigon and would introduce a new and most needed capability for making direct shipments to MR-1 and MR-2.

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<sup>1/</sup> Dr. Ernest J. Nesius reports that a third new dock near Soc Trang is currently being used by local merchants as a market stand for selling vegetables to local residents. This might provide an additional port for shipping rice.













TABLE D-1

## RICE PRODUCTION AND SURPLUS SHIPMENTS: MR IV PLUS LONG AN PROVINCE, MR III

Province	1969/1970				1970/1971				1971/1972			
	Prod	Rice 60%	Rice 50%		Prod	Rice 60%	Rice 50%		Prod	Rice 60%	Rice 50%	
An Giang	276,800				345,000							
An Xuyen	220,500				235,000							
Ba Xuyen	460,600				499,000							
Bac Lieu	305,000				335,000							
Chau Doc	188,600				200,000							
Chuong Thien	214,500				224,000							
Dinh Tuong	356,250				339,000							
Go Cong	113,950				115,000							
Kien Giang	250,000				264,000							
Kien Hoa	259,200				276,000							
Kien Phong	162,000				172,000							
Kien Tuong	22,000				32,000							
Long An	275,000				309,000							
Phong Dinh	267,000				300,000							
Vinh Binh	250,900				261,000							
Vinh Long	191,300				234,000							
Sa Dec	114,400				141,000							
	3,928,000	//	2,356,800	/	1,954,000	4,331,000	//	2,598,600	//	2,165,500		
Surplus Shipments		397,348	397,348			700,000	700,000					
Balance Remaining		1,959,452	//	1,566,652		1,898,600	//	1,465,500				
Surplus Shipments		17%				27%						
Balance Remaining		83%				73%						
<p>Crop year 1969/1970 indicates the crop grown and harvested by farmers between July 1969 and June 1970; It is assumed that this rice is available for marketing during Jan-Dec. 1970 and that some portion of the crop may remain in stock for a longer period of time. Same methodology applies to previous years.</p>												
USDA/IADG	SOURCE:											



COUNTRY: Vietnam  
 PRODUCT: Rice  
 SOURCE : \_\_\_\_\_

DELTA DELIVERIES TO SAIGON 1959-1970 TABLE E-1

(Includes all of MR IV plus Long An Province, MR III)

Date	Receipts										Commer- cial	Gov.
	An Giang	Ba Xuyen	Bac Lieu	Dinh Tuong	Kien Giang	Long An	Phong Dinh	Vinh Long	Other Province	Total Province		
1970 1	1243	10914	6151	4185	1302	5876	2832	178	5847	38528		
2	1425	6845	2399	2247	931	2317	1378	378	3844	21764		
3	3250	10585	9442	4602	3408	2511	2456	1241	6343	43838		
4	2691	4647	3898	5547	3697	1696	2115	1766	5660	32717		
5	2215	2198	2896	3624	1443	1619	1604	1236	4793	21628		
1/ 6	3109	5787	1958	3924	1678	1880	1923	1436		28400		
7	3780	3657	1603	4029	3140	1896	2136	1503		27500		
8	2533	4547	3262	4272	1633	1646	2349	1813		28282		
9	2568	4014	2726	4690	2686	1997	2239	2030		29462		
10	3099	9639	6877	4483	3235	1709	3062	2149		44129		
11	2362	4770	4700	4576	5568	1638	3659	1593		38100		
12	Est. Jan 2, 1970	-	-	-	-	-	-	-	-	43000		
Total	28275	67603	45912	46179	28721	24785	25743	15318	71812	397348	237548	154800
% 3/	8	19	13	13	8	7	7	4	20	99	60	40
1969 1	1419	12936	5898	3011	4715	-	2434	2999	3213	36625		
2	1792	8434	7395	1967	2516	2588	906	797	2768	29163		
3	3098	13083	9799	2746	1679	3739	3141	1784	5255	44324		
4	1488	11645	3900	2776	1046	2963	2297	1700	3373	31188		
5	1538	7751	4425	2588	1310	3209	1538	1606	4429	28394		
6	1111	5820	2821	1483	1308	2853	1485	1457	2430	20768		
7	1157	6396	7510	2196	2693	3457	2020	1221	1982	28632		
8	846	10812	5336	3070	4662	3783	2452	224	1315	32500		
9	674	16997	8093	1646	2878	2190	2356	68	581	35488		
10	143	5547	4819	1967	1394	3478	1556	184	470	19558		
11	4	1860	874	1510	154	2835	362	52	569	8220		
12	39	3040	858	2465	51	4117	588	22	2867	14047		
Total	13309	104321	61733	27425	24406	35212	21135	12114	29252	328907	263100	65807
%	4	32	19	8	7	11	6	4	9	100	80	20
1/ Data June-Nov 1970 are estimates from MOE obtained Dec. 28												
3/ % of total 11 month deliveries												
2/ Total of Jan-Nov. plus estimate of December.												
USDA/IADS		SOURCE:										



COUNTRY: Vietnam  
 PRODUCT: Rice  
 SOURCE : \_\_\_\_\_

DELTA DELIVERIES TO SAIGON

TABLE F-3

(Includes all of MR IV plus Long An Province, MR III)

DATE	An Giang	Ba Xuyen	Bac Lieu	Dinh Tuong	Kien Giang	Long An	Phong Dinh	Vinh Long	Other Province	Total Province			
1967 1	13	9656	2590	4794	2669	5328	1093	1377	2279	29,799			
2	260	4284	2644	3049	3032	1902	629	1987	1360	19,147			
3	395	10942	5600	4262	5469	2972	2039	2271	1638	35,588			
4	565	7979	6327	2593	4144	1552	1028	1915	1109	27,212			
5	32	8125	3067	3098	2576	3845	2599	1733	1705	26,780			
6	475	9923	1383	2530	2790	1546	1305	1963	707	22,622			
7	489	6767	1283	2650	205	2501	2266	-	2999	19,160			
8	162	4375	847	2426	605	2737	1831	1723	1157	15,863			
9	-	5654	2135	2958	962	4132	1230	1665	1005	19,741			
10	52	5583	2093	24	547	2933	1294	546	5025	18,097			
11	125	6429	4094	3975	1097	4142	1066	56	3580	24,564			
12	-	5930	2074	4435	1747	4674	631	66	4078	23,685			
Total	2,568	85,697	34,137	36,794	25,843	38,264	17,011	15,302	26,642	282,258			
%	1	30	12	13	9	14	6	5	9	99			
1966 1	4	560	5702	3282	4290	3618	3040	2235	2741	1978	27446		
2	11	1559	5233	2169	3190	4713	1972	2470	3714	4279	29299		
3	17	2363	7262	13645	1729	5541	1627	2233	2405	1214	38019		
4	13	1756	5549	6636	2364	3567	1645	3401	3842	3411	32171		
5	21	2916	9818	6531	1875	4489	1482	4278	3081	3055	37525		
6	12	1646	9008	4837	2888	2619	1771	2713	3032	2448	30962		
7	5	732	9600	2777	1116	1515	1626	347	1805	1502	21020		
8	6	817	8477	5887	1628	765	2149	1139	1436	1375	23673		
9	4	545	6515	2576	1848	716	3069	2037	1022	4736	23064		
10	4	478	6213	2725	1757	872	3323	1712	860	1568	19508		
11	1	202	6505	2119	2803	1740	3763	1426	1567	579	20704		
12	1	80	8338	1061	3139	661	3541	1063	566	972	19421		
Total	99	13654	88220	54245	28627	30816	29008	25054	26071	27117	322812		
%	4	27	17	9	10	9	8	8	8	100			
				1959	1960	1961	1962	1963	1964	1965			Average
Annual Delta Deliveries				575,297	575,816	559,132	577,542	734,267	507,164	449,299			568,360
Monthly Average				47,941	47,984	46,594	48,128	61,189	42,264	37,442			47,363
USDA/IADS		SOURCE:	Nien Giam Thong	Ke Viet	Nam 1969	for data	through	1968;					
			Monthly Bulletin	1969, Jan-June	1970; Ministry of	Economy,	Jun-Dec	1970					

TABLE F-1

## VIETNAM: Rice Imports, Monthly by Port 1968-1970

SOURCE: TMB/USAID/Saigon

(All Foreign Arrivals)

		Saigon	Nha Trang	Bangoi	Qui Nhon	Danang	Total	
1970	1	9153	7750	6013	8717	6079	37712	
	2	4400	6700	6001	8250	14352	39703	
	3	10630	9920	10022	12641	24910	68123	
	4	14512	0	7564	3381	25136	50593	
	5	10400	2502	10061	14573	15388	52924	
	6	4431	5747	9789	8739	19009	47715	296,770
	7	18714	9021	14604	1742	18198	62279	
	8	7868	6405	6062	9907	24872	55114	
	9	0	2100	11278	0	28220	41598	
	10	264	0	0	0	7189	7453	
	11	0	0	309	3207	11686	15202	
	12 (Est. Dec. 28)	16298 96670	10361 60506	14716 96419	8967 80124	15623 210662	65965 544381	
1969	1	0	0	0	0	4721	4721	
	2	0	0	0	0	0	0	
	3	0	0	0	0	0	0	
	4	0	0	0	0	0	0	
	5	0	0	0	0	9832	9832	
	6	9453	0	0	9563	10058	29074	
	7	9792	18501	0	9848	22698	60839	
	8	0	0	0	0	9567	9567	
	9	10712	0	0	7620	13100	31432	
	10	29525	9654	11804	0	9432	60415	
	11	31982	0	0	9808	20157	61947	
	12	18390 (109854)	13380 (41535)	0 (11804)	2000 (38839)	24074 (123639)	57844 (325671)	
1968	1	9573	5300	-	9604	5203	29680	
	2	23698	9810	2080	9799	18369	63756	
	3	50364	9854	14432	14227	24834	113711	
	4	10811	6292	5957	1769	12395	37224	
	5	4025	8812	4049	5588	23253	45727	
	6	25380	3852	3847	8384	22021	63484	
	7	6256	15846	9967	9207	15313	56589	
	8	32889	20396	0	19310	30802	103397	
	9	0	11669	0	14382	21171	47222	
	10	0	8762	0	4441	8056	21223	
	11	0	0	10003	0	24142	34145	
	12	0	0	0	0	14096	14096	
		162996	100557	50335	96711	219655	630254	

STOCK BALANCE: MR I CY 1970

-000-

	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC <sup>1/</sup>	Total or Average
Begin Stock	24.3	9.8	10.1	16.4	14.6	23.2	17.9	16.6	21.9	16.0	18.5	11.6	16.7
Danang Imp	4.1	16.2	19.3	25.1	15.4	19.0	18.2	24.9	28.2	7.2	11.7	15.6	204.9 <sup>2/</sup>
Transshipments	0	0	0	0	0	0	0	0	0	5.5	10.1	22.6	38.2
Total Avail	28.4	10.1	29.4	41.5	30.0	42.2	36.1	41.5	50.1	28.7	40.3	49.8	
Disappearance	18.6	15.9	13.0	26.9	6.8	24.3	19.5	19.6	34.1	10.2	28.7	19.8	19.8
End Stock	9.8	10.1	16.4	14.6	23.2	17.9	16.6	21.9	16.0	18.5	11.6	30.0 <sup>3/</sup>	17.2
1/ December rice arrivals and carry out stock are estimates based on latest data available January 5, 1970													
2/ Imports recorded by TMB total 210,662, about 5,762 higher than shown above. Differences occur primarily in January-March data.													
USDA/IADS	SOURCE:												





TABLE H-1

STOCK BALANCE: MR I - CY 1969

	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Total or Average
Begin Stock	37.2	30.3	18.3	17.4	34.7	24.5	28.2	37.0	32.1	28.0	21.2	9.9	26.6
Danang Impt	4.7	0	0	0	9.8	10.1	32.3	0	13.1	13.5	16.2	34.1	133.8 <sup>1/</sup>
Transshipment	0	10.6	8.2	14.0	9.9	14.8	0	11.1	0	0	0	0	68.6
Total Avail	41.9	40.9	26.5	31.4	54.4	49.4	60.5	48.1	45.2	41.5	37.4	44.0	
Disappearance	11.6	22.6	9.1	-3.3 <sup>2/</sup>	29.9	21.2	23.5	16.0	17.2	20.3	27.5	19.7	2/
End Stock	30.3	18.3	17.4	34.7	24.5	28.2	37.0	32.1	28.0	21.2	9.9	24.3	24.6

1/ Imports recorded by TMS total 123,639, about 10,161 tons less than shown above. Differences occur primarily in end of year arrivals and may be reflected in early 1970 arrivals. See footnote #2 CY 1970 data.

2/ A statistical anomaly that appears to have been caused by the discovery of greater stocks than had been recorded previously. Excluding April data, disappearances for the first half year were 18.8 per month and 20.7 for the last 6 months.













TABLE I-1

AVERAGE DEFICIT AREA REQUIREMENTS, CURRENT INCREASED DEFICIT AREA  
PRODUCTION AND APPARENT CY 1971 RICE REQUIREMENTS  
-000-

	MR-1		MR-2		Total MR-1 +	MR 2		Saigon + MR-3	Area	Total Areas	Deficit
	60%	50%	60%	50%	60%	50%		60%	50%	60%	50%
A. Average rice requirements											
3 YRS 1968-70					900	824		737	700	1637	1524
Current Rice Prod					-536	-448		-256	-213	-792	-661
1971 Deficit Need					364	376		481	487	845	863
B. Average rice requirement											
2 YRS 1969-70	432	398	472	431	904	829		681	644	1585	1473
Current Rice Prod	-226	-189	-310	-259	-536	-448		-256	-213	-792	-661
1971 Deficit Need	206	209	162	172	368	381		425	431	793	812
C. Rice requirement											
1970 1 YR	455	419	506	461	961	880		650	612	1611	1492
Current Rice Prod	226	-189	-310	-259	-536	-448		-256	-213	-792	-661
1971 Deficit Need	229	230	196	202	425	432		394	399	819	831
										-97	-97 1/
										722	734
"1971 Deficit Area Need" means the amount of rice needed in 1971 to supplement current deficit area production in order to duplicate total supply conditions											
during (A) Average of 1968-1970 requirements (3 years)											
(B) Average of requirements during 1969-1970 (2 years)											
(C) Supply conditions in 1970 (1 year)											
<u>This amount of rice must derive either from surplus Delta supplies or foreign imports.</u> ↑      ↑											
1/ Total volume of rice presently scheduled for delivery during 1971. A balance of 100,000 tons on a current PL 480 agreement has not yet been scheduled but could be available for delivery during 1971.											
USDA/IADS	SOURCE:										





TABLE O-1

## DEFICIT AREA STOCK BALANCE PROJECTION: CY 1971

-000-

	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Total or Average
Begin Stock	98	107	84	116	108	105	105	105	105	105	105	105	
MR-1	30	38	24	15	16	27	38	39	35	31	27	33	
MR-2	40	44	33	27	31	35	39	43	42	41	40	39	
S + MR-3	28	25	27	74	61	43	28	23	28	33	38	33	
Domestic Supply	30	45	50	60	65	68	68	68	68	68	68	64	722
MR-1	0	5	10	20	30	30	20	15	15	15	15	18	193
MR-2	0	5	10	20	20	20	20	15	15	15	15	16	171
S + MR-3	30	35	30	20	15	18	28	38	38	38	38	30	358
Imports	47	0	50	0	0	0	0	0	0	0	0	0	
MR-1	27	0	0	0	0	0	0	0	0	0	0	0	
MR-2	20	0	0	0	0	0	0	0	0	0	0	0	
S + MR-3	0	0	50	0	0	0	0	0	0	0	0	0	
Total Avail	175	152	184	176	173	173	173	173	173	173	173	169	
MR-1	57	43	34	35	46	57	58	54	50	46	42	51	
MR-2	60	49	43	47	51	55	59	58	57	56	55	55	
S + MR-3	58	60	107	94	76	61	56	61	66	71	76	63	
Disappearance <sup>1/</sup>	68	68	68	68	68	68	68	68	68	68	68	68	816
MR-1	19	19	19	19	19	19	19	19	19	19	19	19	
MR-2	16	16	16	16	16	16	16	16	16	16	16	16	
S + MR-3	33	33	33	33	33	33	33	33	33	33	33	33	
End Stock	107	84	116	108	105	105	105	105	105	105	105	101	
MR-1	38	24	15	16	27	38	39	35	31	27	23	32	
MR-2	44	33	27	31	35	39	43	42	41	40	39	39	
S + MR-3	25	27	74	61	43	28	23	28	33	38	43	30	
1/ Actual projections are				MR-1	19.08	per month							
				MR-2	16.33								
				MR-3	32.83								
USDA/IADS	SOURCE:												

REPRESENTATIVE PRICES: PADDY/RICE, WHOLESALE/RETAIL <sup>1/</sup>

TABLE P-1

Wholesale Price: Paddy, Med. Grain <sup>1/</sup>				Retail Price: Rice, Medium Grain, 25% brokers <sup>2/</sup>								
	MR-4 BaXuyen	MR-2 BinhDinh	MR-1 Danang		MR-4 BaXuyen	Saigon	MR-2 BinhDinh	MR-1 Danang				
1969	1	12	-	-	21	31	-	-				
	2	13	28	26	22	31	55	39				
	3	14	22	29	19	34	45	40				
	4	14	22	28	22	31	50	39				
	5	16	20	27	26	33	50	35				
	6	19	20	27	28	33	50	35				
	7	19	24	27	27	34	50	35				
	8	19	24	27	28	38	50	35				
	9	25	22	27	30	43	55	35				
	10	25	35	29	38	40	60	38				
	11	30	40	35	44	52	80	45				
	12	32	40	-	58	49	60	60				
		20	27	26	30	37	55	40				
1970	1	-	40	28	-	51	55	54				
	2	-	45	25	45	52	65	56				
	3	-	40	25	48	55	60	56				
	4	-	40	27	52	57	75	56				
	5	28	40	27	55	57	70	56				
	6	26	35	27	52	52	70	56				
	7	26	30	27	55	49	70	56				
	8	26	30	27	55	48	70	56				
	9	22	30	27	54	48	70	56				
	10	22	30	30	52	47	75	56				
	11	22	35	30	52	48	70	60				
	12	20	40	30	52	49	60	60				
		24	36	28	52	51	68	57				
<p><sup>1/</sup> Basis for selection: Ba Xuyen is largest surplus province, others are major deficit areas.</p> <p><sup>2/</sup> Piasters per kilogram</p>												
USDA/IADS	SOURCE:											