Republic of Vietnam Economy*

Section I: GENERAL ECONOMIC ANALYSIS

*Extracted from Project Papers prepared by USAID/Vietnam in November 1974.

Annex IX

GENERAL ECONOMIC ANALYSIS

A. Review of 1970-1972

The two-year period beginning in early 1970 was a generally favorable one for the Vietnamese economy. Security conditions were gradually improving, and the level of economic activity rose steadily. Although data are not precise, it seems likely that domestic output rose by around 5 percent in both 1970 and 1971. Subsequent to June 1970 prices were relatively stable. Retail prices in Saigon rose by less than 15 percent in 1971, after having advanced by an average of more than 35 percent in the preceding 5 years.

Beginning in September 1970, the GVN undertook a program of major economic reforms which extended through the following year. Interest rates, exchange rates, the tariff structure, import licensing controls and other economic policy elements were completely overhauled. The intent of the reforms was to curtail sharply administrative controls, which had never worked effectively, and to reestablish appropriate market prices to the maximum extent possible. The last major reform in the series took place in November 1971 when a flexible exchange rate system was established at an initial official rate of 410 piasters to the dollar.

While 1970 and 1971 were years during which the great bulk of American troops were withdrawn from Vietnam, the impact of this with-drawal on the economy was deferred. Vietnamese dollar earnings from the U.S. presence continued at a high level through 1971, partly because much of American spending was associated with rear area base camps and programs not related to the number of combat troops in the country, partly because an exchange rate of 118 piasters to the dollar for official expenses was maintained until April 1, 1972, and partly because a more attractive exchange rate for U.S. personnel for personal expenses introduced in October 1970 drew an unexpectedly large volume of troop spending out of the black market into legal channels. Total earnings from the U.S. presence reached $403 million in 1971 and this, together with AID appropriations and P.L. 480, permitted the economy to expand and kept inflationary pressures under control even though the level of GVN military forces and military budgetary expenditure continued to rise.

While 1970 and 1971 had been years of relative progress and stability for the economy, 1972 brought severe trials and some reverses. The private sector had some difficulty digesting the reforms of the preceding November. The higher exchange rates, together with high interest rates, put pressure on businessmen to reduce traditionally high inventory levels, but most businesses were slow to respond, and inventories were still high when the first quarter ended.

The North Vietnamese offensive, launched March 31, 1972, had immediate and severely damaging consequences for the economy. In addition to the physical destruction which was extensive, there was the impact on private sector confidence. Consumers reacted by cutting down on deferrable expenses; businessmen immediately put off investment projects and began attempting to reduce inventories. The combined effect of the above factors was a serious recession. The recession reached a low point around June-July, and there was a gradual recovery during the last half of the year. However, the recovery was far from complete by year end, and several industries, including construction, textile manufacturing, and the wholesale trade in durable goods, remained depressed.

The weather added to Vietnam's problem in 1972. After three successive years of excellent harverts, the 1972 rice crop suffered from inadequate rainfall during the early planting season. Imports of milled rice, which were only about 140,000 tons in 1971, rose to 285,000 tons in 1972, and about 300,000 tons in 1973.

In addition, 1972 was the first year in which the U.S. troop withdrawal severely affected Vietnam's foreign exchange resources. The combined result of the diminishing number of U.S. troops in Viet-Nam and the shift to the new official rate of exchange was to lower Vietnam's earnings from the U.S. presence to about $229 million, a decline of nearly $175 million from the 1971 level. An increase in exports, large in percentage terms but small in dollars, and some saving in invisible expenses helped, but it was necessary for Vietnam to draw down her foreign exchange reserves.

Additionally, Vietnam's expenditures for the war and on programs related to the war rose sharply in 1972, as the number of soldiers and police increased and their pay was raised, and as outlays for veterans' benefits, refugee relief, and aid to the families of war victims increased. Payments to landlords under the land reform program also increased during 1972.

In short, the economy suffered a decline of uncertain but undoubtedly rather severe proportions in domestic output, earned less dollars and had to pay out far more piasters per dollar earned because of higher exchange rates, and at the same time expended more resources on the war. The result is that living standards suffered some decline.

Although 1972 was a difficult year for the economy, some favorable developments took place. Exports rose sharply, nearly doubling despite the damage inflicted on one of Vietnam's major exports, rubber. Tax collections also showed improvement. Savings and time deposits in the banking system continued to rise, from a total of 50.2 billion piasters at the end of 1971 to 116.4 billion by December 1972. Additional GVN economic reforms were another favorable development.

Finally, on the credit side of the ledger for 1972, it can be said that the economic reforms of 1970 and 1971 held up well in the face of difficulties.

B. <u>Events in 1973-74</u>

1975 may, by comparison, soften the memory of the 1973-74 period. As 1974 ends, most Vietnamese looked back on two years of increasing hardship and stress, and foreward with a sense of foreboding. Despite the note of peace and optimism on which it began, the 1973-74 period has been a time of declining incomes, increasing unemployment and intense military activity. The economic problems of 1973, proved more intractable in 1974. The deflationary spiral of 1973, which was partly obscured by inflational pressures until the second quarter of 1974, gained mementum as 1974 progressed. The last major increase in petroleum prices, in January 1974, hit the economy very hard.

Until the POL price increase, economic conditions were partly obscured by the world buying spree, and particularly the euphoria of Japanese buyers. In the 4th quarter of 1973, Japenese buyers were very active in shrimp and lumber, critical exports for Vietnam, and appeared to be almost indifferent to price. By the end of the first quarter, some unmanufactured commodity prices started to stabilize or decline and inventory losses accumulate. Commerical conditions, which were slack in 1973, declined through 1974.

As the 4th quarter of 1974 commenced, the largest foundry in Vietnam indicated a need to release half its employees, some textile firms were allegedly making payments in fabric and the largest cotton textile firm was operating at 60 percent of capacity. One measure of the contraction in consumption is an estimated 50 percent decline in milk product consumption. There are very few exceptions to the general contraction, and even exports declined by 19 percent between the 1st and 3rd quarters; and the decline would be greater if expressed in real terms.

Domestic inflationary pressure subsided after the 1st quarter of 1974. Retail prices of food products led index increases, but non-food prices actually declined in the 3rd quarter if adjusted for devaluation. The token increase in nominal non-food prices in the 3rd quarter is ominous in that public sector employees had a 25 percent salary increase. The reaction of prices to public sector pay raises, including the military, has been confined to foods for the last year and a half. Purchasing power has decreased to the point where additional income is spent almost exclusively on food.

1. <u>Cease-Fire, American Withdrawal, and their Consequences</u>

The withdrawal of American troops from Vietnam had of course been in progress since 1969, and although it definitely affected incomes and employment as well as dollar earnings in 1972, not until 1973 did the great gap left by the U.S. withdrawal appear as a dominating fact in the economy.

After the cease-fire of January 28, 1973, and the last departure of American soldiers 60 days later, Vietnam was left with a residual annual dollar earning rate from the U.S. presence of about $100 million, compared to $403 million in 1971. The number of Vietnamese directly employed by the U.S. Mission on September 30, 1973 was 17,273, compared to 160,041 at the peak in June, 1969, and 50,699 in September, 1972. It can be estimated that the number of Vietnamese employed indirectly as a result of the American presence dropped by at least as much.

The decline in U.S. expenditures brought Vietnam's national income down by some 5 to 10%. This blow fell chiefly on the urban classes and the service sector of the economy. Its most visible effects were on the cities of Central Vietnam where U.S. jobs had for years helped to alleviate some of the miseries of the refugee-swollen population.

2. <u>Agency for the Development of The Danang Area</u> (ADDA)

To reduce the impact of job loss in Central Vietnam, a public sector employment cum investment program for Danang-area development was initiated. Subsequently, the program expanded to Pleiku, Dalat, and Quang Tin. By August, 1974, employment reached 18,000 and a sister agency was established in Saigon (ADSA).

ADSA commenced activities in September, 1974, and by the end of the month was employing 3,000, with an employment goal of 9,000 by year-end. Initially, both urban and rural programs concentrated on long neglected maintenance work, cleaning and clearing canals, constructing dams and dikes, and digging irrigation canals.

3. <u>The Increase in World Prices</u>

The economic impact of the U.S. withdrawal was aggravated by the world inflaction in commodity prices which began in 1972, accelerated through 1973, peaking in the 1st quarter of 1974. The imbalance in Vietnam's trade, with exports at 10 percent of imports, precludes meaningful off-setting of import price increase by exports.

USAID's C&F index, which is heavily weighted by CIP-financed commodities, discloses the extent of the world commodity inflation.

	July, 1971	July, 1972	July, 1973	Sept 1974
All Imports	100	108	130	232

It should be noted that since March, 1974, import commodity prices have performed well, increasing by only 4.7 percent. In part, the increase over the March-to-September period is understated, for the unavailability from the U.S. of selected commodities allowed Vietnamese importers to shift shources of supply under CIP financing. If Vietnamese importers subsequently shift back to U.S. sources for products now purchased elsewhere, the index will jump. The index, therefore, reflects the actual cost of imports to Vietnam and is not, strictly speaking, a constant market basket.

4. <u>The Level of Foreign Economic AID</u>

Nominal U.S. economic aid expenditures for Vietnam increased in 1974 from the levels of the two preceding years 1/. In expenditure terms, assistance from AID funds and PL-480 compares as follows:

	CY 1972	CY 1973 $ Million	CY-1974 (est.)
AID			
CIP	283	258	365
Direct Dollar Support	16	32	-
Projects	60	41	40
PL-480	118	144	240
Total	477	475	645

Third-country aid and international institutions are also increasing aid levels rapidly on a commitment basis.

1/ In 1974 CIP general licensing, excluding POL and fertilizer, has decreased 40% from the 1973 level on an average monthly basis.

In 1973 there was no third country assistance for balance-of-payments purposes (all such aid was project related). In 1974, Japan, Taiwan and France provided $45 million in general import support. Third-country aid in 1974, again on a commitment basis, is estimated at $186 million, up from $108 million in 1973 and $52 million in 1972.

5. Agriculture - Rice

Agricultural technicians are hoping for a 5 percent crop increase in 1974-75. The 1973-74 crop was an estimated 6.6 million metric tons, and a record. Reduced applications of fertilizer and less than optimum weather conditions may reduce the expected 1974 yields. To counter the decline in fertilizer application, the GVN improved production incentives by increasing the rice price in July, and began subsidizing fertilizer in September.

The fertilizer subsidy and market pressure reduced the wholesale price of urea by almost 20 percent, and the sale of NFA rice stocks stabilized retail rice prices in the late summer. Since the beginning of 1973, the price of the common type of rice has increased 140 percent.

6. Imports

In dollar terms, total imports rose to about $620 million in the first 8 months of 1974, from the 1973 level of $515 million. The sources of financing were the following:

	1973 (8 mos.) $ Millions	1974 (8 mos.)
USAID CIP	176	240
PL-480	121	200
GVN-financed	218	180
Total	515	620

In real terms, the levels actually dropped. The average licensed cost of 1974 imports was approximately 75 percent higher than 1973, and while the landed cost increase is lower than the licensing increase, it is more than enough to eliminate the dollar increase. If the licensing cost index is lagged six months (to approximate landed costs), the increase in cost is approximately 55 percent and the deflated value of 1974 imports is $400 million for a decrease in real imports of 22 percent.

In fact, and as the following table demonstrates, if import levels are adjusted to CY 1972 prices, the real level of 1974 imports is significantly lower than all years since 1966.

ECON TABLE I

COMMERCIAL IMPORT PAYMENTS
1963 - 1973 (US$ Million)

	1963	1964	1965	1966	1967	1968
GVN	76.0	94.0	85.0	237.0	288.0	309.0
(AID Freight)	(2)	(3)	(7)	(16)	(26)	(28)
CIP	119.0	105.0	155.0	259.0	194.0	101.0
PL-480	26.0	34.0	48.0	76.0	153.0	138.0
Total	221.0	233.0	288.0	572.0	635.0	548.0
Import Prices (1972: 100)	74.4	75.3	76.8	78.5	80.0	80.0
Import ($ 1972)	297.0	309.4	375.0	728.7	793.7	679.9

	1969	1970	1971	1972	1973	1974
GVN	424.0	390.0	374.0	276.0	314.0	
(AID Freight)	(21)	(30)	(23)	(27)	(29)	
CIP	177.0	181.0	259.0	284.0	258.0	
PL-480	88.0	121.0	81.0	118.0	144.0	
Total	689.0	692.0	714.0	678.0	716.0	
Import Prices (1972: 100)	83.2	87.6	90.3	100.0	135.0	
Imports ($ 1972)	828.1	790.0	790.7	678.0	530.4	400 1/

1/ Estimated.

The composition of imports by commodity has shifted away from less essential imports necessities. Since later July when additional measures were taken to deter import demand for less essential goods, the proportion of less essentials to total GVN-financed imports has fallen sharply to about 19% or less. This compares with a rate of 38% in 1972.

The ten most important import commodities in 1973 were the following:

		$Millions
1.	POL	82
2.	Rice	77
3.	Machinery	68
4.	Sugar	59
5.	Fertilizer	57
6.	Yarn and Thread	36
7.	Iron and Steel	35
8.	Wheat	29
9.	Pharmaceuticals	27
10.	Cotton	23

7. Exports

Exports in the first nine months of 1974 were $58 million, almost double the value of exports in the same period in 1973. The total value of exports in 1973, $60 million, was 160 percent greater than the value of 1972 exports. The following list indicates the most important exports:

	1973 (9 months)	1974 (9 months)
Fish Products	8.0	19.8
Rubber	5.6	11.1
Forest Products	9.1	10.0
Tea and Coffee	1.4	6.3
Scrap	5.0	3.0
Handicraft Products	0.9	1.8
Duck Feathers	0.9	0.8

8. Foreign Investment

Although potential large investors have been hesitant to made major commitments in Vietnam, considerable interest continues to be expressed. Several investor groups are exploring tourist facilities, from a large resort complex in Dalat to new hotels in Saigon. In terms of U.S. investor interest, however, the most signi-ficient recent development has been the extension of OPIC guarantees to Vietnam. Several applications have been filed for OPIC coverage, and it is expected that the availability of OPIC will whet the interest of major U.S. investors already attracted by low wages.

The export processing zone is off to a good start. Foreign interest in small investments in the zone has been high. In many ways, there is a similar response to OPIC guarantees and the Saigon Export Processing Zone: the large corporations are looking and the small corporations are investing. A few large investments, or a major oil discovery may provide the necessary impetus for many additional investors interested in exploiting the lowest wage scales in East Asia.

In the last 18 months there has been considerable activity in offshore oil. The first lease bidding, which was postponed in 1972, was held in July 1973, and the second round was completed in May, 1974. The two rounds resulted in receipt of signiture bonuses of $47 million.

The first well drilled by Shell's subsidiary, Pecten, resulted in encouraging trace discoveries of petroleum; and the second drilling attempt discovered oil and gas. Despite considerable GVN interest in early disclosure of a commercial petroleum discovery, Pecten has been extremely conservative in announcing its finds. In early November, Mobil moved its platform to Vietnam to begin exploratory drilling, and two additional firms are expected to start drilling before the year ends. The promising drilling operations of Pecten appear to have encouraged competitor companies to commence test drilling as early as possible.

ECON TABLE II
UNIT PRICE COMPARISON
(C&F US$)

Commodity	1972	1973	1974	% Increase 1974/1972	% Increase 1974/1973
Nylon Yarn (70 D)	1.02/lb	1.02/lb	1.63/lb	60	60
Acetate (70 D)	0.82/lb	0.85/lb	1.10/lb	34	29
Rayon (70 D)	0.99/lb	1.09/lb	1.42/lb	43	30
Wire Rods	193/MT	226/MT	469/MT	143	108
Black Plate	270/MT	290/MT	430/MT	59	48
Tin Plate	320/MT	347/MT	400/MT	25	15
Tripolyphosphate	242/MT	489/MT	500/MT(est)	107(est)	2(est)
Caustic Soda	173/MT	200/MT	254/MT	47	27
Aluminum Sulfate	48/MT 1/	72/MT 1/	95/MT 1/	98	32
Polyvinylchloride	.124/lb	.176/lb	.65/lb(est)	424(est)	269(est) 2/
Polyethylene (LD)	.142/lb	.178/lb	.60/lb(est)	323(est)	237(est) 2/
Polypropylene	.153/lb	.184/lb	.60/lb(est)	292(est)	226(est)"
Gas Engine (6HP & under)	72/set	77.10/set	71/set	-1	-8
Fluorescent Tubes	.39/pc	.203/pc	.25/pc	-36	23
Urea	82/MT	150/MT	375/MT	357	150
Fertilizer (Mixed)	123/MT	167/MT	289/MT	135	73
DAP	140/MT	175/MT	375/MT	168	114
Mogas (regular)	4.29/bbl	4.29/bbl	11.51/bbl	168	168
Mogas (premium)	5.36/bbl	5.36/bbl	13.13/bbl	145	145
Diesel	4.30/bbl	4.30/bbl	12.77/bbl	197	197
Kerosene	5.12/bbl	5.12/bbl	13.46/bbl	163	163
Fuel oil	3.06/bbl	3.06/bbl	10.63/bbl	247	247

1/ FOB
2/ Presently not available for import.
Source: CIP licensing records.
February 28, 1974

Of course, many items in the retail price index are influenced by a high import component, e.g., paper, electricity, beer. It is estimated that (leaving rice aside) about half of the increase in the retail price index can be accounted for by imports. Rice is a special factor. During 1973, the dollar price of imported PL-480 rice rose sharply, and the GVN responded by raising the official price of imported rice,but more slowly, absorbing part of the impact with subsidies. Imported rice, representing the marginal supply in a tight market, tended to set the price for domestic varieties.

Although OPEC announced large price increases in petroleum products at the end of 1973, the GVN held-off retail price increases until old stocks were drawn-down, and decreed new prices on the 26th of January when gasoline was set at $1.65 per gallon. Pushed by the dramatic cost increases in petroleum, retail prices jumped 21% in the 1st quarter, with petroleum-related products accounting for 60% of price increase.

9. Energy Crisis Comes to Viet-Nam

With rapidly rising prices, POL imports in 1973 cost about $82 million, compared to $60 million in 1972, for a physical volume less than 1% greater. With the January, 1974, escalation of prices, the estimated 1974 import cost for the same volume was $200 million-an unacceptable figure. In November, 1973, the GVN raised POL prices by percentages ranging rom 28 to 30. The price of premium gasoline was raised to VN$145 per liter, equivalent to $1.00/gallon at the 550 rate of exchange. In January, 1974, gasoline was raised to VN$245 per liter, equivalent to $1.65 at the 550 exchange rate and $1.38 per gallon at the current 670 exchange rate. Other measures to restrict consumption were initiated, e.g., cuts in air-conditioning of GVN offices.

The impact of price increases in petroleum were and remain profound. On the plus side, commercial sales of gasoline have been reduced by one-third and kerosene sales fully two-thirds, providing a great stimulus to local charcoal production. Although not confined to diesel-users, the January price increases had a severe economic impact in users of diesel fuel. The diesel liter price, which increased from 60 to 125 piaster per liter, all but stopped fishing, curtailed the forestry and trucking industries; and only when the diesel price dropped to 95 did activities resume, but on a lower level. Buses and bicycles increasingly replaced private vehicles throughout Vietnam as petroleum conservation became on economic necessity.

10. GVN Budget Expenditures

GVN expenditures totaled VN$515 billion in 1973, an increase of 45% over 1972. Since prices increased 45% year-to-year, the GVN budget was constant in real terms in 1972 and 1973. The estimated 1974 GVN budget is VN$720, an increase of 40%, and the year-to-year price increase will be approximately 50%. In real terms, therefore, the GVN budget declined in 1974. During 1973, wages of GVN officials and military employees were raised by VN$3000 per month effective September 1, 1974. The average increase in payroll cost of the 1973 raise was about 17%.

In July, 1974, civil and military employees received a raise of approximately 23%. In view of the 126% retail price increase over 21 months (1973-1974), the pay raises totaling 44 percent provided only partial protection against inflation.

11. GVN Receipts

Domestic tax receipts rose sharply in 1973. Total collections were VN$193 billion, of which collections by the Directorate General of Taxation (DGT) were VN$168 billion and other receipts VN$25 billion. This compares with total domestic collections of VN$100 billion in 1972.

The amount of real increase, after adjustment for a year-to-year price level increase of some 45%, was approximately 34%. The primary cause of the revenue gain was the 1972 reform, which completely revised all tax legislation. The most spectacular feature of the new tax system was the introduction of a Value Added Tax on July 1, 1973. Originally levied on nearly all transactions, it was partially rescinded in August to exempt retail sales, rice, and some services. Despite this step back, receipts from VAT reached VN$28 billion in 1973 and VN$61 billion in 10 months of 1974.

DGT tax collections in the first 9 months of 1974 increased 62 percent over the same period in 1973. With price increases in the period of the same amount, revenues were unchanged in real terms.

The drop in imports of highly-taxed luxuries and less essential commodities over the period 1972-1974, resulted in an 11% drop in customs revenues. In nominal terms, Customs revenues increased 12% between 1972 and 1973. With collections estimated at VN$42 billion, a nominal decrease of 15% is estimated for 1974.

12. Banking and Credit - During 1974, total commercial credit outstanding in Vietnam rose 19 percent from VN$150 billion to VN$178 billion by September. Saving and time deposits in the same period rose 45 percent as indicated below:

	Dec 31, 1972	Dec 31, 1973	Sept 30, 1974
	$VN Billions		
Savings Deposits	58.5	92.2	144.0
Time Deposits	57.9	59.3	76.4
Sub-Total	116.4	151.5	220.4
Demand Deposits	39.2	54.9	52.4
Total	155.6	206.4	272.8

In view of the estimated increase in prices during 1974 of 38-40 percent, interest rates continued to be negative for the year as a whole. Since March, however, the quarterly rate of retail price increase has been a little over 6 percent and the interest rate has been negative by a narrow margin.

C. GVN Economic Policies

By and large, the GVN's economic policies during 1973-1974 were formulated in the 1970-1972 period. Exchange rates continued to be flexible. During the period, the official rate changed from VN$465:1.00 in January 1973, to VN$670:1.00 in October, 1974. The CIP rate moved from VN$320 to VN$610, and the export rate changed from an exchange subsidy of approximately 10% to an interest rate subsidy.

The change in subsidy for export was prompted by the IMF Team's visit, and recommendations in early 1974 to unify the exchange rate structure. In spite of the change in the rate structure and import reforms announced in July, 1974, the import management system remained largely unchanged over the period. The July reforms, which included the public sector wage hike, a fertilizer subsidy and rice price increase, prohibited non-essential imports and created a brief flurry of currency speculation.

Over 1974 the combination of tighter import credit, new import prohibitions and depressed business activity has resulted in extremely low import demand, which is illustrated below by the monthly rate of licensing and letter of credit openings.

Monthly Import Licensing (Excludes POL, Fertilizer and PL-480)

		1974		
	1973	Jan-Mar	April-June	July-Sept
Licensing:	43	38	19	22

Interest rates increased modestly during 1974, as time deposits moved into the 19 to 26% range for one-to-twelve-month deposits respectively. Commercial bankers estimate that by the third quarter, most commercial credit cost the borrower 34 percent, up from about 26 percent in 1973.

In the second and third quarters of 1974, commercial bank credit outstanding increased marginally, notwithstanding substantial increases in bank liquidity. With poor business conditions, Bank holdings of Treasury Bills increased by VN$39 billion in eight months.

In 1973, the GVN's rice policy shifted sharply. In August the GVN intervened actively in rice markets, decreeing price controls, delivery quotas and a blockade of NVA-held areas, In July, 1974, to increase the price incentive for farmers, the GVN increased rice prices 12% and subsidized fertilizer by 20 percent. The subsidy was implemented in September and is expected to stimulate fertilizer purchases and farmer application, now down by 20 to 30%.

D. Summary of Self-Help Measures.

Tax Collections - In 1972, the GVN decreed a number of tax measures which taken as a package constituted a basic reform of the domestic tax system. In 1973, through the vigorous efforts of the Directorate General of Taxation (DGT), the new system bore results far beyond anyone's expectations. There is perhaps no better indication of the GVN's recent self-help efforts than its 1973 domestic tax performance. In 1974, however, general economic conditions precluded an impressive new gain in revenue.

1973 domestic tax receipts reached VN$193 billion compared to VN$100 billion collected in 1972, a 93 percent increase (see Table III). Table IV provides comparative data of 1973 domestic tax performance with that of previous years. The data show that 1973 domestic collections adjusted for price inflation rose 34 percent over 1972 receipts, by far the best one-year showing of recent record. (Estimated 1974 and 1975 tax receipts are provided in Table VI).

Table V compares domestic revenues with import revenues and foreign aid, and relates them to GVN expenditures. Measured as a proportion of GVN expenditures, 1973 domestic receipts were 38 percent compared with 28-29 percent prevailing in the previous four years. The results reflect the effects of the exchange rate and tariff reforms of November 15, 1971, which resulted in the bulk of customs revenues shifting to the exchange rate. This is evidenced in the large decrease in 1972 "Foreign Revenues" and the sharp increase in "Foreign Aid" (U.S. counterpart).

ECON TABLE III

GVN REVENUES 1972 - 1973
(VN$ Billion)

	1972	1973
A. Total Revenues	146.7	246.5 1/
1. Domestic	99.5	193.0
2. Foreign	47.2	53.5
B. Total Domestic	99.5	193.0
1. Directorate General of Taxation (DGT)	67.6	168.4
a. Indirect 1/	42.1	111.9
(VAT & Special Consumption Tax)	(0.0)	(96.9)
b. Registration	8.2	7.4
c. Direct	16.3	28.5
(Income Tax)	(11.4)	(21.5)
d. War Relief Taxes 2/	1.0	0.6
e. Perequation Taxes 2/	0.5	20.0
2. Government Agencies & Miscellaneous	16.1	18.8 3/
3. Perequation Tax on Beer & Soft Drinks 4/	7.0	0.9
4. Lottery Receipts	4.2	4.9
5. War Relief Taxes 5/	4.6	0.0
C. Total Foreign	47.2	53.5
1. Customs Duty Receipts	27.7	30.9
2. Other Customs Receipts 6/	0.6	0.6
3. Perequation 7/	18.9	22.0

1/ One of the major features of the new tax system was the consolidation of a number of indirect, excise, and perequation taxes within the VAT and Special Consumption Tax. Other indirect taxes include those on motor vehicles, entertainment, and dancing. Totals exclude oil concession fees

2/ Upon implementation in May 1972, war relief taxes were collected by two agencies, DGT and MTI. DGT collected minor categories of these taxes such as those on restaurants and entertainment while the bulk of collections were made by MTI on selected commodities including POL fuels, tobacco, beer, etc. On December 1, DGT assumed responsibility for collecting all categories except those on POL fuels which were picked up January 1. Item B.1.d. represents those minor categories originally collected by DGT while item B.1.e. represents those collections originally made by MTI but now collected by DGT. On July 1, 1973 the minor categories were dropped. However, those previously collected by MTI but now shifted to DGT are reported separately as "Perequation Taxes" (B.1.e.).

3/ Estimate.

4/ Collected by MTI until March 1, 1973 at which time converted to an ad valorem tax and collected by DGT as a special consumption tax.

5/ Collections by MTI. Also see footnote #2.

6/ "Other Customs Receipts" include collections from the Fraud Repression Service, interest and commissions, fines and seizures, overtime fees, circulation tax receipts, sanitary tax receipts, and other miscellaneous collections.

7/ Collections by MTI and NBVN for the Perequation Tax Fund. These are additional to those collected by DGT (item B.1.c.).

ECON TABLE IV

GVN DOMESTIC REVENUES, 1967-73
ACTUAL AND REAL
(VN$ BILLION)

		1967	1968	1969	1970	1971	1972	1973
I.	Directorate General of Taxation (DGT) Collections	17.2	19.1	27.3	37.9	49.1	67.6	168.4
II.	Other Domestic Receipts 1/	8.2	8.7	11.1	15.4	22.3	27.3	24.6 2/
III.	Total Domestic Revenues, Actual	25.4	27.8	38.4	53.3	71.4	99.5	193.0
IV.	Adjustment Factor for Inflation 3/	100.0	127.9	153.9	209.5	244.0	308.2	447.0
V.	Total Domestic Revenues, Real (1967 Piasters)	25.4	21.7	25.0	25.4	29.3	32.3	43.2
VI.	Percentage Increase (or Decrease) Over Prior Year	N/A	(14.6%)	15.2%	1.6%	15.4%	10.2%	33.7%

1/ Includes Government Agencies and Miscellaneous Receipts, National Lottery Receipts, and Perequation Taxes on Beer and Soft Drinks. Sugar Development Fund Receipts are excluded due to unavailability of data prior to 1971 and uncertainty of 1971-73 data.

2/ Estimate.

3/ Inflation adjustment factor is NIS Saigon Consumer Price Index for Working Class Families (without Rent) converted to base 1967 = 100.

Source: USAID/VN

ECON TABLE V

GVN EXPENDITURES, REVENUES, AND FOREIGN AID
(1967 - 1973)
(VN$ BILLION)

		1967	1968	1969	1970	1971	1972	1973
I.	Expenditures	98	121	133	187	253	368	505
II.	Revenues	49	55	88	125	183	149	247
	A. Domestic	(25)	(28)	(38)	(53)	(73)	(102)	(193)*
	B. Foreign	(24)	(27)	(50)	(72)	(110)	(47)	(54)
III.	Deficit Before Foreign Aid	49	66	45	62	70	219	258
IV.	Foreign Aid (U.S. Counterpart Funds)	15	20	25	28	31	101	128
V.	Deficit After Foreign Aid	34	46	20	34	39	118	130
VI.	Deficit After Foreign Aid as Percent Expenditures	35%	38%	15%	18%	15%	32%	26%
VII.	Domestic Revenues as Percent Expenditures	26%	23%	29%	28%	29%	28%	38%

* Estimate, excludes collections for Sugar Development Fund.

Source: USAID/VN

ECON TABLE VI

GVN BUDGET EXPENDITURES
($VN Billion)

		1971	1972	1973	1974 1/	1975 1/
I.	Expenditures	256	355	515	720	978
	Security 2/	177	226	284	347	443
	Civil Operations	63	109	181	233	290
	Economic Development	13	20	40	50	150
	Subsidies 3/	3		10	90	95
II.	Resources	256	355	515	720	975
	Taxes	177	143	254	335	410
	(Domestic)	(66)	(96)	(201) 5/	(293) 5/	(370) 5/
	(Import)	(111)	(47)	(53)	(42)	(40)
	Aid counterpart	22	65	113	260	331 4/
	Treasury Bond Sales	18	38	17	65	-
	Total Resources	217	246	384	660	741
	Deficit (Ex. minus Resources)	39	109	131	60	237
	(% of Expenditures)	(15)	(31)	(25)	(8)	(24)
	Deficit after Taxes only	79	212	261	385	568
	(% of expenditures)	(31)	(60)	(51)	(53)	(58)

1/ Estimate. for 1975: Proposed budget - 825; pay raise - 55 (25% effective July 1); subsidies - 95 (fertilizer - 60; Rice - 20; Export - 15); carryover LTTT compensation from 1974 - 3.

2/ Includes MOND and MOI

3/ Rice, Export, Fertilizer

4/ Includes VN$49 other Donor Counterpart

5/ Included oil concession fees: 1973 - 8; 1974 - 20; 1975 - 28.

1. Value-Added Tax (VAT) - In reviewing 1973 tax performance, the six months ending 12/31/73 were particularly significant as this period witnessed the installation of the controversial VAT tax (7/1/73). Though the VAT was subsequently limited in scope due to public outcry, it still has become a major revenue earner, generating VN$28 billion or 28 percent of total DCT collections during the second half of 1973. In the 10 months through October 1974, the VAT generated VN$61 billion and accounted the same share of DCT income, that is, 29 percent; 1973 - 74 collections compare with VN$9 billion collected during the same period in 1972 for taxes replaced by VAT. The VAT was therefore, one of the most significant self-help measures taken in recent years.

2. Additional Revenues Accruing from POL Price Increases - The increases in retail POL prices will bring an increase in POL-related tax revenues estimated at VN$30 billion in 1974. Rather than absorb part of the OPEC price increases in reduced taxes, the GVN has maintained its basic tax structure intact which effectively amplified the OPEC prices. The intent was to reduce consumption and conserve foreign exchange.

3. Exports - While tax performance in 1973 clearly demonstrated GVN self-help efforts, export promotion deserves equal acclaim. Export earnings reported by the NBVN for January-September 1974, are $58 million compared to $61 million in for the full year in 1973, $22.7 million in 1972 and $12-15 million in the three previous years. Though world prices account for some of these increases, the GVN has made export development a corner-stone of its development policy. Toward this end, the GVN has offered exporters a variety of incentives including subsidies, tax exemptions, technical assistance and travel privileges to explore prospective markets.

E. Outlook for CY 1974-75

1. General - While the resilience of the GVN and the economy enabled Vietnam to endure a reduction (in real terms) in foreign assistance during 1973-74, the reduction in domestic production of goods and services and a decrease in real terms in imports without any major breakdown, an inevitable result was a decline in real savings and investment. The total new capital investment, public and private, was about seven percent of GNP, a rate not large enough to support the increase in production needed to match Vietnam's three percent population growth rate. In short, the economy made no progress toward self-sufficiency and regressed in some respects.

If in 1975 the total foreign aid continues to decline in real terms, the result will be even lower savings and investment than in 1974 and a stagna trend in exports. Unemployment will grow, income distribution will worsen, and the welfare problems will become more severe. The efficiency of GVN services, both civil and military, will decline as inflation erodes the real income of GVN employees. The economic reforms and policies which the U.S. Mission has supported will not be sustained under such conditions and there will be a reversion to direct controls.

The case for lower and higher levels of assistance, was made in Saigon 414 of January 10, 1974 (classified). The level of assistance needed to achieve the desired results or even to avert substantial regression has increased substantially as a result of the extremely high and rapid increases in the cost of POL, fertilizer and other essentials in the 1973-74 period.

The minimum level of assistance in FY 75 will probably result in the following: An inflation rate of 45-50 percent, further decline in GVN real wages, a reduced rate of new savings and time deposits, an increase in speculation and hoarding, a decline in real investment, and an increase in unemployment. In the longer-term, this means that domestic production will fail to increase, targets for import substitution and exports will not be met and there will be no improvement in trade balances. Further, given this deterioration there are limited prospects for increasing third country aid, soft loans from international institutions, commercial loans or private investment.

With the higher level of assistance and the counterpart divided mainly between production-oriented public works and production credit for agriculture and industry, the following should result: savings and investments would be more than double that under the minimum level, absorption of most of the annual increase to the work force in productive activity, inflation held to a 15-20 percent range and GVN real wages maintained. Over the longer term, the impact would be more dramatic, as there could be rapid progress in exports and import substitution, a decline in the trade gap, and an improved climate for obtaining third country and international institutional assistance.

The Vietnamese economy cannot progress from its present, highly dependent condition to one of self-sufficiency without passing through a short phase in which relatively high aid levels permit investments great enough to generate self-sustaining improvement in production. But the increase in world prices has raised the nominal cost of accomplishing this objective. The full price for failure to provide adequate assistance will not be paid in 1975--the Vietnamese economy might endure more years like 1973 and 1974 because it is reasonably resilient--but in 1976 and 1977.

2. GVN Budget. Table VI below estimates the GVN 1975 national budget by major revenue and expenditure categories. As in 1974, security expenditures (VN$443 billion--including Ministry of Defense, Police and PSDF) will consume almost half of the budget, severely limiting the government's capacity to devote resources to economic development priorities. Nevertheless, since 1970, non-security outlays have been growing as a percentage of the total budget, from 29% to about 55% in 1975. Almost half of that amount will go for refugee relief and re-settlement, as well as veterans benefits. Another major budget item is the "rice subsidy." The subsidy is actually an intra-governmental transfer of funds, rather than a true "expenditure", but the effect is to allow the government to sell imported PL-480 rice to civil servants and soldiers at lower-than-cost.

3. Balance of Payments. Table VII below presents estimated 1974 and projected 1975 balance of payments transactions. Projections do not include this proposed loan. Even assuming another substantial loss of GVN foreign exchange reserves, the level of real imports in 1974 and 1975 will be 5-10 percent less than 1973. The projected increase in the nominal value of imports is accounted for by sharply higher costs for essential commodities such as POL, fertilizer, and foodstuffs.

ECON TABLE VII
BALANCE OF PAYMENTS
(US$ Millions)

	1974
A. Receipts	
Exports	80
Invisibles	214
(Interest)	(12)
(Currency Notes)	(46)
(Oil Co. Fees)	(30)
(Other)	(126)
IMF Oil Facility	-
U.S. Assistance	710
(CIP - Ex POL)	(260)
(POL Reimbursements)	(105)
(PL-480)	(240)
(Direct Dollar Support)	-
(Piaster Purchases)	(105)
Other Donor Aid	20
Total Receipts	1,024
B. Payments	
Imports	909
(GVN-Ex POL & AID Freight)	(200)
(POL Advances)	(135)
(AID Freight)	(54)
(CIP - Ex POL)	(260)
(PL-480)	(240)
(Other Donors)	(20)
Invisibles	85
Total Payments	994
C. Foreign Exchange Reserves	
Change	+30
End-year NBVN Reserves 2/	227

1/ Assumes FY-75 AID appropriation of US$350 million, with $315 million for CIP.

2/ Includes forex, gold, SDR, IMF gold tranche.

SECTION II - INDUSTRY SECTOR ANALYSIS AND CONSTRAINTS

A. The Industry Sector

1. Role of Industry in the Economy

The industrial sector is small, only about 8% of GNP, and is dominated by textile production, particularly weaving, food processing, beverage production and pharmaceuticals (Table XVI). During 1972, the textile industry employed 29% of all industrial workers and the food processing and beverage industries employed 20%. Vietnam has favorable wage rates which help make numerous types of labor-intensive manufacturing attractive, including textile spinning and weaving, garment making, electronics, lumber and plywood manufacture, footwear, and other products requiring natural rubber. During the first quarter 1974, for example, average gross earnings of production and service workers in the food processing and made-up textile industries were VN$25,783 (US$40.29) and VN$15,454 (US$24.15) per month respectively.

According to a recent survey made by Business International-Asia Pacific, a Hong Kong based business counselling firm, labor in Vietnam is among the cheapest in the region. The following table gives an idea of how labor cost for five selected occupations in Vietnam compares with wage rates of other countries in Asia. Table XII shows average wage costs by industry in Vietnam.

TABLE X

AVERAGE MONTHLY SALARY IN U.S. DOLLARS

Country	Electrical Engineer	Index	Senior Executive Secretary	Index	Sales Clerk	Index	Skilled Worker	Index	Truck Driver	Index
Hong Kong	462	100	428	100	149	100	168	100	182	100
Korea	215	47	215	50	178	119	128	76	168	92
Malaysia	865	187	376	88	116	78	128	76	78	43
Philippines	154	33	132	31	55	37	58	35	53	29
Singapore	487	105	340	79	120	81	174	104	97	53
Taiwan	158	34	258	60	90	60	106	63	96	53
Thailand	388	84	322	75	131	88	75	45	71	39
Vietnam	352	76	111	26	79	53	67	40	58	32

Source: American Chamber of Commerce in Vietnam, Bulletin, September 10, 1974.

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TABLE XI

GROSS NATIONAL PRODUCT BY INDUSTRY SECTOR IN CURRENT PRICES

Sector	1965	Per cent	1966	Per cent	1967	Per cent	1968	Per cent	1969	Per cent	1970	Per cent	1971	Per cent
GROSS NATIONAL PRODUCT	146.0	100.0	237.6	100.0	356.7	100.0	385.3	100.0	557.6	100.0	804.4	100.0	977.9	100.0
Agriculture	37.4	25.8	55.3	23.4	102.0	28.6	106.3	27.6	156.6	28.1	245.1	30.5	299.9	30.7
Industry	17.1	11.8	22.8	9.6	21.9	6.1	27.0	7.0	36.9	6.6	60.9	7.6	83.4	8.5
Services	70.4	48.5	130.0	55.0	185.9	52.1	202.2	52.5	282.2	50.6	360.1	44.7	425.7	43.5
Government	20.1	20.8	47.2	20.0	63.6	17.8	76.4	19.8	108.8	10.5	130.7	16.2	170.9	17.5
Commence	14.4	9.9	27.9	11.8	42.6	11.9	35.7	9.3	65.8	11.8	96.7	12.0	118.3	12.1
Transportation, banking	7.7	5.3	11.8	4.9	18.8	5.3	14.9	3.9	24.9	4.5	31.1	3.8	43.8	4.5
Rent other services	15.6	10.7	25.7	10.9	39.1	11.0	48.8	12.7	58.8	10.5	75.7	9.4	70.7	7.2
Net factor income from abroad	2.6	1.8	17.4	7.4	21.8	6.1	26.4	6.8	23.9	4.3	25.9	3.3	21.9	2.2
Taxes, statistical differences	21.1	13.9	29.5	12.0	46.9	13.2	49.8	12.9	81.9	14.7	138.3	17.2	168.9	17.3

Source: National Bank of Vietnam.

Note: Data for 1971 are the most recent data available.

TABLE XII

AVERAGE MONTHLY GROSS EARNINGS OF PRODUCTION AND SERVICE WORKERS BY INDUSTRY IN METROPOLITAN SAIGON 1974

Industry	1974 VN$	1974 US$ 2/
Manufacturing	25,298	39.53
Dairy	43,853	68.52
Food products	25,783	40.29
Beverage	36,250	56.64
Tobacco	92,534	144.58
Textile	21,045	32.88
Rope and twine	18,692	29.21
Made-up textiles	15,454	24.15
Pulp and paper	28,955	45.24
Printing	21,098	32.97
Industrial chemicals	26,023	40.66
Drugs and medecines	22,089	34.51
Paints	13,499	21.09
Tires, rubber products	29,906	46.73
Plastic products	15,612	29.55
Pottery, china	13,433	20.99
Glass	18,912	29.55
Clay	15,560	24.31
Cement	20,521	32.06
Iron and steel	18,342	28.66
Fabricated metal products	25,476	39.81
Electrical apparatus	18,542	28.97
Other industries	28,575	44.65
Electricity	28,009	43.76
Construction	24,101	37.66
Trade	39,655	61.96
Wholesale	42,448	66.32
Hotels	21,168	33.08
Transport	34,124	53.32
Banks	59,159	92.44
Hospitals	39,974	62.46

1/ First quarter.
2/ VN$640 = US$

Source: Ministry of Labour.

A large portion of major industrial materials, such as cement, continue to be imported and constitute a major foreign exchange cost. The textile industry does not produce enough to meet domestic demand during normal times and substantial investment to increase capacity in some parts of the industry is required to satisfy the local market. The structure of imports gradually has changed from food and manufactured products toward raw materials and semi-finished products which constituted 33% of imports in 1971 but only 21% in 1968. A major expansion of production and processing of vegetable oil-seeds is anticipated, encouraged by high international prices.

2. Post-Ceasefire Performance

A series of events, including the oil embargo and higher petroleum prices, resulted in stagnation and declining production in industry through 1973. The 1972 invasion and reduction of U.S. forces contributed to declines in domestic demand for industrial output. The rapid domestic inflation, but slower increase in wages and salaries, also have reduced domestic demand. However, in spite of the real decline of personal incomes and consumption there is a growing consciousness among Vietnamese businessmen and government officials that economic problems are manageable and that industry can play an important part in economic recovery.

Through mid-1974 the development banks had more loan applications from businessmen with economically sound investment projects than they were able to finance, even though industrial development credit approximately doubled during each of the last three years. Industrial exports grew rapidly during 1973. However, the export drive slackened in the fourth quarter of 1973 and remained relatively stagnant in 1974 although at a higher level. Exports through August were \$54.8 million, an annual rate of about \$75 million, which is below earlier expectations of \$90-100 million. (See table XXII).

The Investment Development Agency (IDA) approved 176 projects during 1973 with a total proposed investment of VN\$115 billion (US\$231.0 million); 112 projects were approved during the first half of 1974 with a total investment of \$71.2 million. (See table XX). Privileges available under the investment law are widely regarded as probably the most generous among Asian countries. The National Economic Development Fund (NEDEF) approved projects through the end of 1973 utilizing virtually the entire VN\$20 billion of available industrial and agro-industrial credit but received no additional funding and approved no loans until September 1974 when VN\$10 billion of new funds were provided from counterpart to NEDEF and VN\$5 billion to IDB.

Exports of the industrial sector during CY 1973 were about \$5.1 million, only 8% of total exports, consisting of a wide variety of products including fish meal, ceramics and craftware, paper products, cotton and wool fabrics. Industrial exports in CY 1974 are expected to expand to $15 million or more.

The GVN has embarked on a vigorous program to establish an Export Processing Zone (EPZ) by the end of 1974 and to expand the area and facilities of industrial estates, particularly at Long Binh, outside of Saigon. However, substantial investment in infrastructure is required. AID hopes to provide financing in FY 1975 for the EPZ.

3. Foreign Trade Deficit

The large imbalance between exports and imports of commodities and the expected reduction of grant foreign financing make closing the foreign trade gap an urgent task. From 1968 to 1972 export shipments ranged between $10 and $15 million annually. Import arrivals during 1966 through 1973 averaged $702 million. An average foreign trade deficit of $634 million was registered between 1966 and 1973 based on foreign exchange payments data. (See table XV). To a large extent imports have been of finished consumer goods or materials used in the production of consumer goods. Over 50% of imports in 1973 were food, textile, and oil products. The first major effort of the GVN to close the trade gap was to reduce imports of unessential commodities. However, this has further depressed the economy, and to a large extent, has been offset by large increases in prices of petroleum and other commodities in 1973 and 1974.

TABLE XIII

IMPORT ARRIVALS BY MAJOR COMMODITY

US$ Million

	1966	1968	1970	1971	1972	1973
Food, beves, & tobacco	145.4	259.9	176.8	130.8	175.3	252.8
Petroleum, oil, lubricants	30.2	30.8	36.5	28.2	75.6	86.7
Construction materials	61.6	34.4	66.4	77.5	77.7	52.3
Chemicals	45.7	43.8	102.1	100.2	98.9	117.6
Textile industry	68.6	51.2	68.8	89.6	94.9	81.9
Metals, metal manuf.	23.0	17.0	11.2	9.4	7.1	10.3
Machinery	77.6	67.4	86.2	105.7	105.4	63.2
Vehicles, parts, tires	58.7	61.8	38.6	34.3	27.3	17.7
Pulp, paper products	12.4	8.5	16.7	17.8	12.4	18.9
Others	84.0	132.7	111.8	111.5	71.0	68.4
Total:	607.2	707.5	715.1	705.0	745.6	769.8

Sources: Directorate General of Customs
USAID/VN

Exports of manufactured products thus far have been small and at least two-thirds of the commodities exported in 1973 were processed or semi-processed agricultural or other extractive products. The potential of the manufacturing sector to produce exports, therefore, has been virtually untapped in spite of attractive wage rates and investment privileges.

TABLE XIV

EXPORT SHIPMENTS BY MAJOR COMMODITY

US$ Million

	1966	1968	1970	1971	1972	1973
Rubber	22.5	9.7	8.9	9.4	5.7	12.7
Coffee, tea, spices	2.0	0.9	0.2	0.3	0.3	3.4
Fishery products	1.0	0.5	0.3	0.5	4.3	13.0
Duck feathers	0.7	0.4	0.5	0.4	0.5	1.3
Forestry products	-	-	-	0.1	1.5	6.8
Metal scrap	-	-	1.0	1.0	1.1	6.4
Others	1.4	0.2	0.5	0.6	2.3	14.4
Total:	27.6	11.7	11.4	12.3	15.7	58.0

Source: Directorate General of Customs

Although exports quadrupled in 1973 the foreign trade deficit remained above the annual 1966-73 average and exports were still only 8.5% of imports. These facts underlie the urgent need for industrial credit to be concentrated in foreign exchange saving and earning projects.

TABLE XV

FOREIGN TRADE DEFICIT 1966-73

US$ Million

Year	Import 1/ Payments	Export 2/ Payments	Deficit	Export/ Imports (%)
1966	572	23	549	4.0
1967	635	20	615	3.1
1968	548	11	537	2.0
1969	689	15	674	2.2
1970	692	12	680	1.7
1971	714	13	701	1.8
1972	678	23	655	3.4
1973	716	61	655	8.5
Average	656	22	634	3.4

1/ GVN financed, CIP, and PL-480 Title I imports only; excluding Project and PL-480 Title II aid.

2/ "General Procedure" exports only; excludes barter and re-exports of POL and POL barrels, the exchange for which flows directly to the oil companies' accounts abroad and not the National Bank.

Source: National Bank of Vietnam

4. Declining Production and Employment

Although investors are interested in undertaking expansion projects in some industries, production and employment in manufacturing as a whole have not started to recover from the declines in output following the third quarter of 1971 when the manufacturing production index reached a peak of 251. The index fell to 236 in 1972, to 202 in 1973, and to 171 during the first quarter of 1974. (See table XVIII). Thus, according to this index, production has fallen 20% from 1971 to 1973. The recession in the industrial sector is widely recognized, but it should be acknowledged that the index of industrial production is not a fully reliable indicator because many new firms have entered production and old firms have gone out of business since the sample was prepared.

Although manufacturing production has declined most employees appear to have remained on company payrolls. The index of employment in manufacturing declined from 124 in 1971 (1969=100) to 121 in 1972 but remained at 121 through 1973, declining again to 119 in the first quarter of 1974 (Table XVI). Production of most major commodities except cotton fabric was substantially lower in 1973 than in 1971 and 1972 (Table XVII).

The industrial sector has been hurt by unexpected external factors following departure of American military forces and the associated decline in domestic demand. The rapid inflation of 1973 and the first quarter of 1974 restricted real demand which depressed production and employment. In addition, the shortage of foreign exchange because of vastly higher import prices and reduced aid funds necessitated steps by the GVN to reduce imports which, in turn, reduced commercial trade and employment.

Employment in the construction industry during the first quarter of 1974 was less than half of employment in 1969. By contrast however, employment in banks, insurance, hospitals and similar industries has expanded rapidly.

If production is to increase new incentives will be necessary. The policies of the GVN which already have been adopted specify that new investment should be directed toward foreign exchange earnings and saving industries as well as those industries which require relatively little or no imported raw materials. Thus far, new investment has been mainly in import substitution projects.

TABLES XVI
INDEX OF EMPLOYMENT IN SELECTED INDUSTRIES
IN METROPOLITAN SAIGON 1971-74

(1969=100)

Industry	No. of workers in 1969	1971	1972	1973	1974 1st Qtr.1/
Number of workers in sample	55,000	65,345	65,531	66,444	-
Combined employment index	100	119	119	121	-
Manufacturing	35,613	124	121	121	119
Dairy products	449	126	139	141	139
Sugar refineries	1,151	115	118	114	113
Food products, other	1,552	141	160	179	179
Beverage industries	2,531	106	102	98	82
Tobacco manufactures	1,520	108	118	114	108
Manufacture of textiles	10,234	134	122	113	115
Cordage, rope and twine	547	125	139	154	145
Made up textile	1,087	128	124	120	116
Pulp, paper and paper board	1,161	143	140	141	147
Printing and publishing	624	108	113	133	142
Basic industrial chemicals	630	148	156	159	162
Paints and chemical products	340	120	120	148	154
Soaps, perfumes, cosmetics	808	101	87	116	112
Drugs and medicines	4,356	102	106	110	110
Tires, tubes	661	89	96	107	106
Plastic products	699	135	138	134	122
Pottery, china	277	107	94	94	96
Glass and glass products	892	126	121	112	95
Structural clay products	701	139	124	122	116
Cement	413	122	118	117	123
Basic iron and steel	411	162	176	181	179
Structural and metal products	1,024	181	158	163	183
Electrical apparatus	1,841	120	113	117	89
Other industries	1,704	107	116	111	93
Electricity	2,723	119	124	141	180
Construction	596	102	93	65	75
Trade, hotels	5,516	105	103	105	95
Wholesale trade	4,587	107	105	109	98
Hotels, restaurants	929	100	90	85	80

Industry	No. of workers in 1969	1971	1972	1973	1974 1st Qtr. 1/
Transport	4,717	101	103	98	91
Air transport	3,637	100	101	98	92
Other transport	465	112	114	105	98
Services to transport	615	95	108	92	78
Banks, Insurance	4,099	117	143	162	157
Banks	3,037	128	164	189	183
Insurance, real estate	519	103	108	112	111
Data processing, arch. services	543	68	57	59	56
Services	1,736	118	117	123	136
Hospitals	645	108	112	137	141
Other services	1,091	124	121	115	133

1/ Preliminary estimates

Source: Ministry of Labor.

TABLE XVII

INDUSTRIAL PRODUCTION OF SELECTED COMMODITIES 1966-74

Commodity	Unit	1966	1967	1968	1969	1970	1971	1972	1973	1974 1st Qtr.
Beer	Mil. liters	118	130	119	134	149	147	143	136	32
Ice	1,000 MT	232	237	239	295	300	296	309	276	61
Oxygen	Mil. M^3	1.13	1.16	1.16	1.57	1.52	1.64	1.22	1.1	0.3
Glass	1,000 bottles	13.5	12.5	10.1	16.5	18.8	20.8	18.1	NA	NA
Cotton yarn	1,000 MT	8.73	7.40	5.00	7.65	11.74	13.37	8.24	10.4	2.3
Cotton fabric	Mil. met.	50.1	43.1	28.5	50.4	58.0	64.1	56.4	70.8	14.5
Kenaf yarn	1,000 MT	2.77	2.28	1.31	1.61	1.52	1.40	1.06	0.6	0.7
Soft drinks	Mil. liters	80.5	89.5	92.3	120.4	138.3	118.5	115.9	97.9	15.3
Cigarettes	1,000 MT	8.7	11.3	10.3	10.5	9.7	12.2	11.8	9.5	2.7
Paper	1,000 MT	19.0	20.8	19.6	33.2	42.8	48.5	46.4	44.3	11.2
Cement	1,000 MT	135	181	145	247	286	263	243	265	63.1
Electric power	Mil. kwh	602	682	715	1,045	1,134	1,343	1,483	1,625	363.1

Source: National Institute of Statistics.

TABLE XVIII

INDEX OF INDUSTRIAL PRODUCTION 1969-74

1962 = 100

Type of product	1969	1970	1971	1972	1972	1974 1/
All items	214.4	244.8	251.3	238.4	211.6	180.4
Manufacturing	218.2	245.6	251.3	235.6	201.6	170.5
Foodstuff	145.3	147.9	236.1	254.8	209.5	112.0
Beverages	254.3	300.7	277.2	259.0	194.5	180.3
Tobacco	207.8	222.7	244.7	230.5	240.7	209.2
Textiles	167.9	195.9	218.2	164.5	170.3	151.5
Clothing, footwear	138.0	134.6	131.4	124.1	87.5	69.6
Wood, wood manufactures	7.0	9.1	4.6	6.9	13.7	14.7
Paper, paper products	355.5	600.3	455.3	499.9	491.7	472.8
Hides and skins	84.0	77.7	41.8	55.6	-	-
Rubber products	373.4	297.7	301.6	351.6	349.5	318.1
Chemical products	210.0	217.4	277.6	241.4	277.1	232.7
Vegetable oil	9.7	2.9	1.4	0.6	5.2	32.0
Ceramic articles	60.7	65.9	69.4	71.7	68.6	-
Lime, cement products	55.2	74.4	73.4	42.0	26.7	25.4
Glass	173.0	193.1	196.1	169.8	171.9	106.8
Aluminum	141.2	98.8	84.3	31.0	21.4	16.5
Iron and steel products	23.9	23.2	22.2	8.9	27.3	110.4
Machinery	131.1	23.1	-	95.1	166.0	126.7
Electric equipment	540.8	387.5	227.2	162.9	221.7	173.0
Transport equipment	154.7	23.2	1.6	0.5	1.6	4.9
Watches and clocks	36.4	9.9	7.5	4.6	-	-
Plastic articles	705.1	477.0	404.6	293.4	449.5	427.7
Electricity	199.3	288.8	313.4	347.3	442.7	492.7

1/ 1st quarter.

Source: National Institute of Statistics.

5. Foreign Investment

During the 10 years prior to 1973 foreign investment in Vietnam averaged less than $1 million annually and in the aggregate was only $6.6 million, one third of which was French (Table XIX). Japan was the second largest investor. As a result of the ceasefire and the expectation of a return to more normal business conditions many foreign firms applied to the Investment Development Agency (IDA) for investment privileges. The IDA approved projects with $51.6 million of foreign investment in 1973. However, implementation of two large projects involving nearly half of the investment approved is still uncertain.

During the first half of 1974 significant changes occurred in the characteristics of applications for investment privileges (Table XX). The interest of foreign investors dwindled in 1974, as evidenced by IDA approvals estimated at US$8.8 million or about 17% of the value of approvals in 1973, $51.6 million. However, the number of approved foreign investment applications increased substantially, although the average investment value per application dropped from US$800,000 in 1973 to an estimated $118,000 in 1974.

Decline in the interest of foreign businessmen in investment in 1974 has been attributed to the unsettled security situation in areas other than metropolitan Saigon. Whatever the explanation, the initial momentum of both foreign and domestic investors, that was evident after the ceasefire, has been diminishing.

B. Problems & Constraints

1. Wartime Dislocations

The effects of war and military spending have been to alter considerably the structure of Vietnam's industry. During the early part of the 1960's, the industrial sector contributed nearly 12% to GNP but by 1969 the sector share was less than 7%. The service sector, however, expanded to a peak of 55% of GNP in 1966 declining to 44% in 1971 (Table XI). The average annual growth rate of the manufacturing sector declined from 16.8% during 1962-65 to 7.9% during 1965-71, a reduction attributable in large measure to the 1968 NVA offensive which involved considerable destruction of production facilities. Although the growth rate during 1965-71 was roughly 50% below the pre-war level, the real crunch to Vietnam's manufacturing industry came after the U.S. troop withdrawal. During 1971-73, the average annual growth rate of industrial output declined to -10.4%. While there were some industries that recorded high rates of growth--wood products, vegetable oil, iron and steel production etc.-- consumer oriented industries that accounted

TABLE XIX
FOREIGN INVESTMENT APPROVED IN LAW
SINCE 1963 BY COUNTRY

Country	1963-72	1973	Total
Liechtenstein 1/		15,000,000	15,000,000
Hong Kong		8,093,173	8,093,173
Indonesia		7,500,000	7,500,000
Japan	1,496,882	4,897,465	6,394,347
U.S.A.	1,034,332	4,456,051	5,490,383
W. Germany	7,000	3,657,600	3,664,600
France	2,074,622	2,580,774	4,655,396
Great Britain		1,755,263	1,755,263
Republic of China	1,100,023	1,373,046	2,473,069
Republic of Korea	285,526	692,000	977,526
Thailand		610,625	610,625
Singapore	393,579	484,100	877,679
Israel		330,000	330,000
Netherlands	120,051	-	120,051
Sri-lanka		120,000	120,000
Switzerland		56,075	56,075
Cambodia	44,444	-	44,444
Laos		14,000	14,000
Total	6,556,459	51,620,172	58,176,631

Notes:

1/ A group of investors of different nationality represented by a Liechtenstein bank.

2/ Projects approved during 1963-71 are all in operation.

3/ 1972-73 data account for new and/or expansion projects; some are in operation, some are not.

4/ Two or more countries could be engaged in any one project.

Source: Investment Development Agency

TABLE XX
CHARACTERISTICS OF PROJECTS GRANTED INVESTMENT PRIVILEGES 1973-74

US$ 000

Characteristics	1973 1/	1974 2/ First half
Number of projects	176	112
Investment expenditures	231,086	71,208
Equity	122,302	32,925
Medium-term loan	87,432	29,705
Short-term loan	21,352	8,578
Value of equipment		
Local	24,332	4,329
Imported	135,174	29,004
Raw materials		
Local	71,144	50,231
Imported	64,113	24,417
Employment		
Local (persons)	29,647	14,422
Foreign (persons)	506	192
Wages	22,106	10,151
FX earnings	78,367	34,762
FX savings	125,796	47,812
Sales	410,776	176,415
Foreign investment		
Number of projects	64	37
Value 3/	51,621	4,382

1/ Exchange rate VN$500: US$1
2/ Exchange rate VN$590: US$1
3/ Includes investment in VN$ converted to US$ at exchange rate of the date of project approval. 1974 data are preliminary figures.

Source: Investment Development Agency

for roughly 90% of total industrial output showed an average growth of -11.3% during this period. The main reason for the reduction can be found in the U.S. troop withdrawal and the resulting rise in unemployment.

The industrial growth that took place during the war was largely in consumer-goods industries using substantial amounts of imported raw materials and semi-finished products. Little investment took place in export industries. At the same time, traditional foreign exchange earning industries, such as raw rubber and wood products, were forced either to discontinue production or to operate at a small fraction of their earlier output levels.

The most obvious dependence of the economy on U.S. expenditures was in the services sector. U.S. Government direct civilian employment of Vietnam citizens reached a maximum of 144,763 in 1969 and declined to about 17,000 in the third quarter of 1973. To this could be added the reduction of secondary employment that depended on expenditures of U.S. Government direct civilian employment. This secondary employment must have been reduced roughly by the same order of magnitude as the reduction of direct employment. At the peak direct hire employment was 11% as large as public sector employment by the GVN; i.e. 1.3 million, including both the military and the civil sector.

With full economic recovery of Vietnam's traditional export industries still somewhat restricted by continuing hostilities, redressing the imbalance in the industrial structure in order to reduce the trade deficit requires vigorous encouragement of new export and import substitution industries. This will require the infusion of large amounts of credit and special incentives to invest in an environment which is still characterized by greater than normal risk.

TABLE XXI

INDUSTRIAL GROWTH RATES

Base 1962 = 100

Type of Product	Index 1965	Ave. Annual Growth Rate 1962-65	Index 1971	Ave. Annual Growth Rate 1965-71	Ave. Annual Growth Rate 1962-71	Index 1973	Ave. Annual Growth Rate 1971-73	Ave. Annual Growth Rate 1962-73
All items	157.9	16.5	251.3	8.1	10.8	211.6	- 8.3	7.1
Manufacturing	159.5	16.8	251.3	7.9	10.8	201.6	-10.4	6.6
Foodstuff	105.8	1.9	236.1	14.3	10.0	209.5	- 5.8	7.0
Beverages	182.1	22.1	277.2	7.3	12.0	194.5	-16.2	6.2
Tobacco	148.4	14.1	244.7	8.7	10.5	240.7	- 0.8	8.3
Textiles	162.5	17.6	218.2	5.0	9.1	170.3	-11.7	5.0
Clothing, footwear	92.8	-2.5	131.4	6.0	3.1	87.5	-18.4	-1.2
Wood, wood manuf.	8.9	-55.4	4.6	-10.4	-29.0	13.7	71.5	-16.5
Paper, paper prod.	146.0	13.4	455.3	20.9	18.4	491.7	3.9	15.6
Hides, skins	178.1	21.2	41.8	-21.5	-9.3	-	-	-
Rubber products	144.6	13.1	301.6	13.0	13.1	349.5	7.6	12.0
Chemical products	187.0	23.2	277.6	6.8	12.0	277.1	- 0.1	9.7
Vegetable oil	54.0	-18.6	1.4	-45.6	-37.8	5.2	92.5	-23.4
Ceramic articles	87.0	-4.5	69.4	-3.7	-4.0	68.6	- 0.6	-3.4
Lime, cement prod.	96.3	-1.3	73.4	-4.4	-3.4	26.7	-39.9	-11.3
Glass	116.7	5.3	196.1	9.0	7.8	171.9	- 6.4	5.0
Aluminium	91.8	-2.8	84.3	-1.4	-1.9	21.4	-49.4	-13.0
Iron, steel prod.	143.3	12.7	22.2	-26.7	-15.4	27.3	10.9	-11.1
Machinery	83.7	-5.8	-	-	-	166.0	-	4.7
Electric equip.	167.2	18.7	227.2	5.2	9.5	221.7	- 1.2	7.5
Transport equip.	159.7	16.9	1.6	-53.6	36.8	1.6	0	-31.3
Watches, clocks	64.7	-13.5	7.5	-30.2	25.1	-	-	-
Plastic articles	358.6	53.1	404.6	2.0	16.8	449.5	5.4	14.6
Electricity	167.8	18.8	313.4	11.0	13.5	442.7	18.8	14.5

Source: USAID/JEO

2. Industrial Crisis

Initiating transitional efforts to redress the imbalance in the industrial structure is made most difficult by current depressed conditions which have led to a banking and industrial crisis of serious proportions. The withdrawal of U.S. troops and the contractionary effect on primary and secondary employment in the Service Sector initiated the recession which was compounded by reduction in foreign aid and dramatic increases in prices of imported commodities. These were followed by rapid inflation of prices of non-import goods, decreased real demand, increased taxes and bans on non-essential imports. By the first quarter of 1974 the index of industrial production had fallen to the 1966 level of 170 (1962=100). With companies experiencing liquidity shortages, and some export prices falling, the banking community reacted by tightening credit requirements in an effort to reduce the risk of their loan portfolios.

As a result of real contraction of demand for industrial output, coupled with tightened credit conditions, numerous companies, such as in the textile and flour industries, have had difficulty meeting debt and wage payments, partly because of extremely high interest rates and large debt-equity ratios. These companies which are threatened with the necessity of reducing the work week and, in some instances, closing plants are owned by many of the same entrepreneurs who will be asked to invest in new and related areas in order to put the economy on a sound footing for the future.

The USAID performed a survey of key industries in August 1974 to try to determine the real extent of the recession. Please see Annex X for details.

3. Other Structural-Institutional Obstacles

In addition to the distorted structure of industrial productive capacity and output, there are other important bottlenecks which constrain development. The institutional framework for correcting the imbalance in the industrial sector in many cases is very inexperienced. This is particularly true of public industrial financing institutions which have yet to develop sound and extensive export financing and credit guaranty programs that are desperately needed during this period of recession. In addition, more must be done by existing GVN investment and production promotion agencies to attract foreign investment and stimulate exports. Notwithstanding the difficulties, there is widespread confidence that, given a reasonable degree of peace and adequate capital financing, the Vietnamese economy can make the transition to self-sustaining economic growth. There also is widespread recognition that transition to economic growth must take place concurrently and in spite of the military activities of North Vietnam and the Viet-Cong.

4. Export Incentives

After two years of rapid growth, Vietnam's export earnings leveled off beginning in late 1973. Although earnings for the first nine months of 1974 were 49% above the corresponding 1973 period, receipts have declined steadily since the peak levels set during January-April, 1974. It appears now that earnings for all of 1974 will be about $75 million, up from $61 million in 1973 but well below the $90-100 million foreseen at the outset of the year.

The rapid growth during 1972-73 followed the exchange reform measures of 1970-71 and related GVN actions aimed at promoting export activities. It coincided with a period of exceptionally rapid increases in world commodity prices, including the prices of the raw materials which Vietnam was able to exploit. During 1972-73, a USAID index of Vietnam's four leading export commodities--frozen shrimp, pine logs, rubber, and scrap--rose by 68%, accounting for a major share of the rise in overall earnings for that year. Thus, worldwide demand trends as well as GVN policy measures combined at that time to provide a powerful incentive to actual and prospective exporters.

Export prices continued rising into the first quarter of 1974, but subsequently have turned downward in line with generally weakening worldwide raw material demand. The aforementioned USAID index of Vietnamese export prices declined 12% between the first quarter and August, 1974. Meanwhile, the initial growth period during which resources could be quickly and easily exploited was giving way to a growing array of problems, many of them peculiar to Vietnam, affecting especially the major product areas. The rubber and lumber industries were hit by increasing security-related problems; the lumber industry was plagued by seemingly intractable bureaucratic obstacles; all producers reported difficulties with the tax system, which impacts at numerous points on the production and movement (e.g., Province Export Taxes) of goods, is often erratic in its impact, and at no point provides positive incentives to exporters; and all producers were affected by rising costs. The shrimp industry, in particular, has been hurt by the extremely high cost of diesel fuel, its most important cost element by far.

Since the major exchange reform of November 1971, the GVN has devalued the piaster in a large number of small--10 and 15 piaster--moves designed to provide a minimum of unsettlement to the markets while maintaining piaster parity with other world currencies. In addition, varying forms of export subsidies have been decreed. The present export subsidy, stated in terms of an "interest rate equivalent," amounts to 10 percent on general products, 15 percent for certain industries judged to be most severely affected by the high cost of fuel; namely, fish products, timber, tea, and glass.

While this type of measurement is difficult, the Mission believes that the degree of devaluation since 1971 has been sufficient to maintain currency parity with Vietnam's principal trading partners, and that together with the subsidy system now in effect, the Vietnamese exporter has been provided with sufficient incentive relative to purely domestic business alternatives. The exporter's position may be jeopardized by weakening demand for Vietnam's main export commodities and the continued decline in export prices, should current world trends persist. However, a large one-time devaluation does not appear warranted within the near future. For one thing, given the structure of the Vietnamese economy with its still-heavy dependence on imports, devaluations impact heavily on costs, in some cases to nearly the same extent as the increase in the exporter's return. The solution to the present situation of lagging exports therefore appears to be more in the area of removing existing obstacles to production and in the introduction of export incentives other than the exchange rate itself. An example of the former would be the revision of bid procedures for lumbering rights which was introduced in October, and which should lead to increased exploitation of timber resources. Much could be done in the way of removing bureaucratic and security restrictions now hampering the fishing industry. On the incentive side there are possibilities in the areas of tax rebates and interest rate preferences that need to be explored. The Mission will be looking into these possibilities and will have the additional assistance of the advisor on export financing who will be arriving shortly.

The number of active exporting firms has increased from fewer than 50 in 1971 to more than 600 now, and 1,500 firms are registered as exporters. These include many small firms that are important to the export drive. The reluctance of commercial banks to lend to small exporters is a major obstacle to increasing exports. The problem is not scarcity of loanable funds because the commercial banks have accumulated excess reserves since tight restraint of imports was imposed early this year. Commercial banks are reluctant to lend to small exporters because they normally do not own real property or have guarantors, which commercial banks usually require as the basis for a client relationship. Without risk, commercial banks can invest in tax free treasury bonds with a tax equivalent return of over 35% compared to short-term business loans which earn about 30% that is taxable and entails risk.

However, a GVN backed system of guarantees, or insurance or risk sharing would probably provide adequate incentive to commercial banks to extend credit to small exporters and to small producers of export products. Also interest rate preferences would tend to attract entrepreneurs to enter the export field or the production of export commodities. Tax rebates or preferences would also aid export promotion.

TABLE XXII

/I- XPORT EARNINGS JANUARY-AUGUST 1974

Commodities / Month	1	2	3	4	5	6	7	8	Accumulation 1/8/74	Accumulation 1/8/73
Fishery products	2,110	2,722	2,441	2,083	1,924	2,599	2,063	1,657	17,599	6,627
Rubber	1,455	1,381	1,771	1,642	1,276	705	1,135	803	10,168	4,393
Forestry products	1,118	676	1,696	1,554	1,402	684	1,375	782	9,287	8,261
Tea and coffee	450	196	376	1,428	1,276	1,535	745	216	6,222	1,180
Duck feather	119	110	152	32	45	64	158	52	762	780
Handicraft products	166	128	118	151	183	201	229	264	1,440	755
Scrap	977	500	141	269	378	309	30	260	2,864	3,775
Labor	9	-	18	25	6	21	42	5	126	381
Miscellaneous	938	668	510	592	1,161	818	409	1,267	6,363	6,925
Total	7,342	6,381	7,223	7,776	7,651	6,936	6,186	5,306	54,801	33,092

Source: Export Development Center, September 14, 1974.

5. Continuing Hostilities

The continuation of hostilities has, to say the least, a damaging effect on the investment climate. The disincentive effects, however, are probably greater on potential western investors than on Asian and Vietnamese businessmen. In spite of limited fighting, the period of capital flight appears to be over and moderate amounts of private funds are entering the economy, mostly from Hong Kong, Taiwan, and the Philippines.

Moreover, businessmen and government officials have developed a degree of self confidence and national pride which was not present even two years ago. Japanese industrialists have constinued to investigate the development of the Cam Ranh area and the Japanese Government has introduced a limited investment guarantee plan. OPIC has reopened operations and everyone is cautiously expectant about the prospect of commercial oil discoveries and the political and economic benefits this could have. In the meantime, with occasional exceptions, the GVN is able to maintain adequate security in the areas planned for industrial expansion. The real disincentive to increased foreign investment is more likely due to fears that U.S. military and economic aid will be phased out too quickly than to a belief that the level and nature of hostilities since January 1973 represent a real threat to development. Any longer range prospects of improvement in the security situation would have a salutory effect on investment in Vietnam.

INDUSTRY REVIEW

At present the leading industries of Vietnam are iron and steel, cement, textiles, beverages and food processing, pharmaceuticals, forest products, fisheries, rubber and rubber products, plastics, paper products, lacquerware and handicrafts. Current cement production is inadequate, and cement and fertilizer imports are a drain on foreign exchange resources. The main export potential from industry currently is from rubber, fisheries and forest products.

Various studies are in progress for several large industries such as cement, fertilizer, petro-chemicals and other basic industries. Silicon sand of high quality in the Cam Ranh Bay area has attracted attention of the glass industry from Japan. Offshore oil exploration by consortia of private petroleum companies has established traces of petroleum and gas, but confirmation and subsequent development of these resources, if warranted, is several years distant.

The textile industry does not produce enough to satisfy domestic requirements, although inefficient small producers are being squeezed out. Despite slow textile sales in the current recession, additional investment in textile capacity is required to satisfy essential demand in Vietnam.

The steel industry has been at low ebb, but is expected to recover substantially with an improved policy on use of domestic ferrous scrap for domestic use and export.

Some industries, such as pharmaceuticals, have been assisted by in-country procurement by the US: DAO/RVNAF 1/ programs supporting the armed forces.

The Commission for Planning has selected several small or medium industrial projects for development in 1975 by the private sector. Ranked by the value of foreign exchange required, the largest investment is proposed for tire production, followed by shrimp trawlers, wood-processing, electronic assembly, steel pipe, silk weaving, rice-hull ash plant, duck feather mill, prefabricated housing, and numbers of agro-supporting industries.

1/ US Defense Attaches Office and Republic of Vietnam Armed Forces.

Vietnam's low wage rates give it comparative advantage in certain labor intensive industries such as textile spinning and weaving, garment making, electronics, lumber and plywood manufacturing, footwear and other products using natural rubber.

Vietnam has suffered a recession since the Spring of 1974 that is reflected in the operation of the 12 industries and the analysis of the current situation presented in the following pages.

Iron and Steel

The GVN is modifying the policy on scrap to the end that all domestic ferrous scrap now in private hands will be fabricated into steel for domestic use and export. This is expected to improve the prospect for the industry.

Ingot capacity was expanded between 1973 and 1974 to 200,000 MT per annum. When recently financed investment in 3 electric furnaces comes into production, the ingot capacity will exceed 300,000 MT annually, which will satisfy domestic demand and enable export of 150,000 MT p.a.

There are 5 small private rolling mills in Vietnam making products such as reinforcing bars and wire rods, with estimated capacity of 50,000 MT.

Iron and steel imports by volume and value were: 2/

Fiscal Year	MT (000)	Dollars millions
FY 1972	154	37
FY 1973	116	26
FY 1974	105	35

Cement

Domestic production of cement satisfies only one-third of demand. The only domestic producer is the GVN-owned Ha Tien Cement Company, with output of 290,000 MT in FY 1972, 285,000 MT in FY 1973 and 280,000 MT in FY 1973.

Domestic demand for cement in FY 1974 dropped 25 per cent to 600,000 MT down from the level of 800,000 MT in both FY 1973 and FY-1972.

Cement import in CY 1972 was 651,600 MT and in CY 1973 was 537,000 MT.

CEMENT (MT-000)

	FY 1972	CY 1972	FY 1973	CY 1973	FY 1974
Demand	800		800		600
Production Ha Tien Cement	290		285		280
Import		652		537	

2/ Source: DCA & CIP licenses issued.

Textiles

In 1972 there were 323 textile plants employing 23,000 or 30% of the industrial labor force. Textile sales of VN$23.4 billion comprised 10% of industrial product sales. Labor intensity is high: VN$1.06 million of equity investment per employee compared with an industry average of VN$5.2 million per job. By 1973 there were installed 184,000 spindles and 4,400 looms.

In CY 1973 textile imports of US$89 million were about 17% in value for fabrics, 73% for raw cotton, yarn and thread. The industry provides new import substitution possibilities through the expansion of cotton spinning capacity by 17%.

In 1974 the industry is in a period of rationalization. Inefficient small scale textile firms are faced with bankruptcy in the current recession. The cottage industry laid of 80% of workers in the 3rd quarter; sales were depressed as production techniques were not competitive with imported products. Smaller dyeing and finishing operations declined 60% in the same period. However, the larger plants, favored with economics of scale and advanced technology, have been able to operate at near capacity, particularly ones producing synthetic fabrics.

Beverages

Recorded beverage production in 1972 was 143 million liters of beer and 116 million liters of soft drinks, Production dropped in 1973 to 136 million liters of beer and 98 million liters of soft drinks (-29%) as demand contracted following the departure of military forces from Vietnam.

During the first half of 1974 drink production was 67% lower than the same period in 1973, beer down 10%, ice down 18%, and employment dropped 12%. Inventories of beer and ice increased 40% and soft drinks 14%. The major beverage company, BGI, has been able to meet its financial commitments.

Food Processing

The food processing industry is developing slowly.

Refined sugar production was 225,000 MT in 1972 based on import of raw sugar. However, in 1974 when the GVN stopped licensing imports of raw sugar, the production of refined sugar by the GVN owned Vietnam Sugar Company was delayed while the plant adapted to use of local cane sugar. At the same time rural plants started to produce crude sugar, sometimes referred to as "artisan" sugar for domestic use.

Production and demand for sweetened condensed milk remained firm until mid-1974 but demand slackened with the recession in the last half of the year.

In 1975 two plants will begin processing instant dry whole milk. Experimentation is also underway on soya milk products.

The food canning industry will develop domestic and export markets slowly, which means that in the next two or three years the market will depend heavily on US financed DAO/RVNAF in-country procurement for supply of the armed forces. An important stimulus for plant expansion of the local canning and processed rice industries was procurement for the armed forces which financed US$6 million of deliveries through July 1974. Delays in US: DAO/RVNAF tenders in FY-1975 had the effect of idling the capacity of four of the largest canning plants, which shows the present dependency on the military market.

Pharmaceuticals.

Since 1966, pharmaceutical imports have exceeded $20 million annually. Substitution for finished pharmaceutical imports is reflected in the value of unfinished product imports, which had risen to one third of total imports by 1972. In the long-run planned increases in production quality and quantity can result in exports benefiting competitively from low labor costs; but for the present important substitution is the main foreign exchange benefit expected from the industry.

US: DAO/RVNAF in-country procurement for the armed forces was an important factor in expanding and improving the quality of pharmaceutical production in Vietnam, with FY-1974 deliveries valued at about $5.6 million.

Forestry and Wood Products

Timber production rose from 1,300,000 M^3 in 1971 to 1,500,000 M^3 in 1973 including timber for unlicensed domestic use.

Exports of forestry products rose from $240,000 in value in 1971 to $13.1 million in 1973. In 10 months of 1974 exports were $10.5 million or about $12 million for the year, despite adverse world market conditions.

There are over 1200 small sawmills in-country with average capacity of 6 M^3 per day. Three modern sawmills, presently under construction, have capacity to produce in aggregate 150 M^3 daily. Product will be 60% for export and 40% for domestic consumption.

Two plywood plants have capacity to produce jointly a total of 10,000 sheets daily (4' x 8' x 1/8").

There are two modern furniture factories in operation, each producing export quality furniture valued at $100,000 per month. Eight more modern furniture factories of equal capacity will commence production within 12 months. The 10 plants will be capable of producing export quality furniture valued at $12 million annually. Also there are about 1,000 cottage style furniture producers.

Additional investment of $245 million in the wood processing industry will be required to fully utilize the sustained yield capacity of the forests of South Vietnam. Industry self financing is expected to provide over half of the investment in plant capacity. However, medium-long-term credit requirements will range between $50 million and $100 million to construct the capital plant to attain this objective.

The wood products industry is currently depressed with employment off 25%. Declining world demand is reflected in a weak market for logs, with prices down 40% since February. Plywood prices are also down 40%, and the two plywood factories are operating at 30% capacity. Domestic demand is weak.

Fisheries

Fishery exports rose from $4.3 million in 1972, to $12 million in 1973, and to $22 million in 10 months of 1974. If this monthly average were extended, 1974 exports would total $25 million. Although world shrimp prices have been higher in the first half of 1974 than the same period in 1973, prices have been declining since January 1974.

The recorded fisheries catch in 1972 was 677,718 metric tons.

Only about 11% of shrimp caught are exported; and shrimp comprise about 90% of all fish exports. Some increase in the percentage of shrimp exported is expected from improved preservation of shrimp catches, and further selection of quality small shrimp for processing and export for the restaurant trade in industrialized countries. Shrimp fishing companies are handicapped by very high fuel costs, with some shake out expected in unprofitable operations using larger shrimp vessels.

The fish processing industry is in process of rationalization. Shrimp processing plants have difficulty in obtaining adequate quality raw material. Eight fishmeal plants in Vietnam have an aggregate capacity of 200 MT per day. Only one plant is currently operating, with production of 20 MT per day. The other plants have ceased operation in response to the high price of scrap fish.

Rubber and Rubber Products

Traditional natural rubber in its crude form has been an export of Vietnam from colonial days, with current production below potential levels because of war damage to and lack of maintenance of rubber plantations. Current production is about 20,000 MT per annum.

Rubber exports of $22.5 million in 1966 dropped after the Tet Offensive to 9.7 million in 1968, and by 1973 had risen to $12.7 million. Exports in the first 7 months of 1974 were $9.4 million, and if this monthly average were extended, would total $16.1 million.

Natural crude rubber comprises about 90% of value of current rubber exports. However, the production of rubber products has increased 250% from 1962 to 1973.

Locally fabricated rubber products are capturing a growing share of the domestic rubber market, winning for example $1.3 million in US: DAO/RVNAF contract swards for production of rubber/canvas combat boots. A related product is the hunting/hiking boot. Vietnam sells these in USA for $16, with a local production cost of $4. Footwear production for the domestic market exceeds 900,000 pairs per year.

Bicycle tire and tube demand is met by local production. A joint-venture will produce motor bike and scooter tires. Capacity for recapping truck and car tires exceeds current demand. However, a plant for tire production could replace substantial import of truck and car tires. The prospect is good for use of natural rubber in radial tires, due to the increasing costs of the petroleum based synthetic components in synthetic tires, which will tend to give comparative advantage to natural rubber production of tires.

Plastics

The plastics industry has expanded four fold from 1962 to 1973. It fabricates household and industrial products from polyvinylchloride (PVC), polyethelene (high and low density), polyamide, polypropylene and polystyrene, all based on the import of synthetic resins. Domestic production was 28,523 MT in 1972 and dropped to 20,460 MT in 1973 due to inadequate supply of resins and the economic recession. Present plant, operating at about 30% of capacity, is fully adequate for the foreseeable future. However, expansion would result in event of the development of a petrochemical industry.

Lacquerware

Lacquer production is labor intensive and requires skilled artisans and artists. Production is currently limited by the reduced supply and rising price of raw lacquer from Cambodia.

Standardization of production for export poses a problem because the quality and design of lacquerware vary from producer to producer. Thus, for example, contracts to supply American department stores and mail order houses with a standardized product are difficult to implement. Therefore, management, organization and promotion are required to advance the export of lacquerware.

Paper and Paper Products

Production of paper and products was 46,376 MT in 1972 and dropped to 44,308 MT in 1973 due to the high cost of imported pulp and a declining domestic market. Main product lines were writing and printing paper (50%), paper board (22%) wrapping paper (8%). Import of woodpulp in 1973 was 39,835 MT. A 450 per cent rise in world pulp prices from 1972 to 1974 spurred investment in the domestic pulp industry by two companies. In the first 8 months of 1974 domestic pulp production was 4,500 MT, and planned additions to plant of 25,000 MT capacity will contribute to production by 1976.

The Current Situation of Small-Medium Industries in Vietnam, 11/15/74

Industrial enterprises of all sizes have been adversely affected by the severe drop in market demand which has occurred in Vietnam since 1972. When a survey was initiated by C. G. Barton in May 1974, firms interviewed reported that sales were off from 50-70% from the levels of 1972. Moreover, costs of raw materials for most types of manufacturing enterprises had soared, with increases ranging from a minimum of 30% to a maximum of 100% for some products. Caught between higher costs for raw materials and decreased market demand, most firms of the import substitution variety were experiencing a severe squeeze on their profits. With demand low, industrial firms were being forced to extend larger and larger amounts of credit in order to keep customers, and the turnover of accounts receivable had slowed to two to three months in lines in which the normal collection period is two weeks to one month maximum. Many smaller firms in this situation were forced to close down their production periodically to collect their accounts so they could purchase more raw materials and start up production for another cycle. Some smaller firms were selling their finished products at barely more than the costs of their raw materials, with scarcely enough left to provide meals for their workers. They were consuming their capital to cover overhead expenses, but preferred to do this to maintain their customers rather than close down.

By the beginning of October, 1974, the situation had deteriorated to the point that the sales of medium size firms were no longer adequate to cover cash outlays for salaries, bank interest, and overhead expenses. Since then, many firms have put their workers on shorter hours at reduced pay. Firms which were liquid enough to pay off their obligations to banks and other creditors have closed down. Others with large loans outstanding but with no means to repay them are now forced to pay their workers in kind; i.e., workers in textile factories receive textiles, and workers in other lines receive the products they are producing in lieu of cash. Firms use this procedure in order to keep the banks from foreclosing and taking over the business.

Overall, small firms can adapt to the situation more easily than larger firms at the present time. Their overhead expenses are less, and they are better able to adjust to unfavorable conditions. Moreover, they have less invested in equipment, and when one line of activity turns bad, they can more easily switch to another line. Their start-up periods are shorter and the required capital outlays less. In some areas, such as ceramics, where firms are able to produce labor intensive products for export, business is actually fairly good. All in all, small firms processing local raw materials and those geared to manufacturing labor intensive goods for export appear to be the brightest spot in Vietnam's otherwise dismal industrial outlook.

SECTION III: Agricultural Sector Analysis

A. Description of the Agricultural Sector

1. Human resources

Total population was estimated at 20 million in 1973. About 70 percent of the rural population (about 45 percent of total population) are directly engaged in farming.

The composition of the rural labor force, as well as the quantity, has been influenced by hostilities. A 1971 survey by the National Institute of Statistics showed that a large percentage of farm workers are female (about 72% of workers in the 20-44 year age group).

Although there are still unemployment, underemployment and large numbers of dislocated people in Vietnam, the lack of mobility of this force due to hostilities and other factors render it relatively unavailable for farming at peak shortage and high demand periods.

As a consequence, Vietnam's farmers have increasingly substituted capital and new technology for labor since 1967. Levels of paddy production in recent years, higher than ever before in history, have been attained largely through the introduction of early-maturing, high-yielding rice varieties, fertilizer, pesticides, water pumps, and tractors.

The wages of unskilled workers both male and female in the Delta, where 70 percent of the rice is grown, have averaged higher than wages in Saigon for similar classes of workers since 1969. As hostilities wind down to a level permitting demobilization and stepped up city-to-farm population movement, adequate manpower will again be available in the rural areas.

2. Geographic, Climatological Data

South Vietnam is a tropical country covering an area of 66,263 square miles, less than half the size of California and about the same size as Indiana.

In Central Vietnam, the Annam mountain chain (5,000-6,000 feet in height) parallels the coast and approaches the sea at some points. The mountain chain has steep slopes to the east. The descent to the west is more gradual, forming a high plateau region in the interior called the Highlands.

Vietnam is readily divisible into natural agricultural production areas of which the Mekong Delta (Military Region IV plus Long An) and a narrow belt along the coast from Vung Tau to the Demilitarized Zone, called Central Vietnam (CVN), are the most important. Eastern Vietnam, which generally includes all of MR III except the coastal provinces, and the Highlands, which include all of MR II except the coastal provinces, are the other production areas. There is more variation in Eastern Vietnam than in the other three production areas. Eastern Vietnam includes some excellent irrigated and non-irrigated paddy land as well as most of the rubber plantations and is an important producer of manioc, sugarcane, oil-seeds, fruit, timber and feed grains. Tea and coffee plantations, pine and hard wood timber, as well as much of the vegetable production, are found in the Highlands.

The Mekong River, which originates in China, forms a large Delta in Southern Vietnam that slopes gently from the Cambodian border southeast to the sea. Except for limestone rock out croppings at Ha Tien and Chau Doc, elevations in the Delta do not vary much more than three meters. Rice fields in Delta provinces near the Cambodian border are inundated by the flood waters of the Mekong each year, beginning in August, while low-lying areas near the mouth of the river are subject to salt water intrusiton at high tide. These conditions, plus the generally poor drainage in southern areas, point up the importance of water control. In the past, the interlocking canal system was used for retaining water to irrigate crops in the dry season and to serve as a transportation artery, but silting has reduced its usefulness for these purposes. The canal system is now being rehabilitated.

Vietnam is warm and humid throughout the year, the temperature normally ranging between 92° and 64° F in Saigon. The warm and cool season averages are 85° and 75°, respectively. Temperatures in the mountain areas, however, are lower, averaging 68° in summer and 60° in winter at Dalat.

In the Delta area the rainy season coincides with the southwest monsoons, from about May to November. About 90% of the annual rainfall is evenly distributed over this period. Along the coastal plain in the central region, which is affected by the northeast monsoons, the rainy season is from August to December. The annual rainfall is generally higher in the northern parts, e.g., Saigon has a mean annual rainfall of 79 inches, while Hue has 114 inches. Occasional typhoons are rarely severe.

3. Land and Water Resources & Crop Production Potential

There are 17.4 million hectares of total land area in South Vietnam. Forest land comprises 12 million hectares and 2.7 million hectares are under cultivation. Of this cultivated area about 10 percent is double cropped which brings the total effective or cropped area cultivated annually to 3 million hectares. An estimated 529,000 hectares of previously cultivated land mostly rice land remained abandoned in 1971.

In addition there are 1.1 million hectares of land not previously cultivated which, because of its fertility, topography and rainfall, could be brought under cultivation without expensive clearing.

The Delta comprises an area of 3.9 million hectares. A recent survey of the Delta by a team from the Netherlands* estimated that about 2 million hectares are being cultivated for one crop of rice per year, and that 5 to 8% of the area planted in rice is irrigated. They estimated that the potential exists for bringing all the 2 million hectares under irrigation for double cropping. However, achieving this potential would require large investments in engineering and construction of salt water intrusion barriers, and drainage and irrigation facilities. This would require a very long range development program as well as a substantial reduction in hostilities.

The survey estimated, however, that sufficient water could be pumped (by low-lift pumps) for irrigating two crops of high-yielding rice varieties during the dry season on 500,000 hectares of the floating rice area with minor investments and without the need for large salt water intrusion controls.

The GVN Ministry of Agriculture is interested in the production potential of the mangrove swamps along the coastal plains of Vietnam. The Ministry believes about 100,000 hectares could be drained and cleared to produce rice and coconut. However, they recognize that further study to determine the economic and agronomic feasibility and considerable resources for exploration would be necessary.

A recent study shows land use potentials to maximize agricultural income in 8 to 10 years under normal peacetime conditions. Five major land resource bases were used for estimating these potentials: (i) the existing base of 2,437,000 ha. of land under cultivation in 1971; (ii) the historical base of 2,966,000 ha. of land that had been under cultivation before the rural exodus; (iii) the combined salt-water intrusion and irrigation base of 3,007,000 ha. which is the historical base plus new land that could be brought under cultivation through salt-water intrusion control and irrigation activities; and (iv) the additional base of 4,137,000 ha. which is the land in (iii) plus 1.1 million hectares of additional land that has never been cultivated.

The existing and potential land uses for agriculture which could be developed in 8-10 years for the five major land resource bases for different crops are shown in Table 1.

Some shifts in land use for specific crops grown are required in order to obtain the optimum use of land and other resources in each resource base. Maximizing agricultural income as shown in Table 1 would result in the production schedule shown in Table 2.

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* Recommendations Concerning Agricultural Development with Improved Water Control in the Mekong Delta, the Netherlands Delta Development Team, April 1974.

Table 2

Crop Production as Programmed for Resource Use to Maximize Agricultural Income

	I	II	III	IV	V
	Existing	Historical	Salt Intrusion	Irrigation	Additional
	------------------------Thousand Metric Tons				------------------------
Crop Production					
Paddy marketed	2768.5	3419.9	3419.9	3567.8	4351.1
Paddy home use	3300.1	3328.5	3328.5	3358.0	3385.8
Paddy fed	366.0	495.9	810.6	810.2	
Total paddy	6434.6	7244.3	7559.0	7736.0	7736.9
Corn marketed	27.2	86.6	52.4	52.7	1300.0
Corn home fed	30.1	100.9	73.4	76.1	555.1
Total corn	57.3	187.5	125.8	128.8	1855.1
Sorghum marketed	135.8	150.6	149.6	149.8	161.6
Sorghum home fed	267.0	351.4	348.1	333.1	342.1
Total sorghum	402.8	502.0	497.7	482.9	503.7
Soybeans			**		181.6
Peanuts	86.8	119.0	171.2	175.6	391.8
Sugarcane		220.0	336.0	523.6	3889.8
Tobacco	25.9	25.9	25.9	25.9	25.9
Rubber	145.5	176.0	176.0	176.0	220.6
Tea	5.9	6.4	6.4	6.4	6.6
Coffee	8.4	8.4	8.4	8.4	50.5
Coconut		480.0	480.0	480.0	480.0
Pineapple			80.0	80.0	80.0
Bananas	215.3	215.3	215.3	222.2	222.2
Jute	11.1	11.1	11.1	11.1	11.1

Source: USDA/ERS Field Report No. 41

Since utilization of land resources is restricted in base I ("Existing") to the areas which are presently cultivated, production increases would be limited to those which could be obtained through increased yields. While this would increase production from the 1971 level by 15 percent in 10 years, it would not be enough to increase real per capita income assuming a 3% population growth, nor would it attain rice exports.

Agricultural production would increase significantly and the GNP would likely increase by following the alternatives shown in resource bases II, III and IV of reclaiming abandoned land, construction of small salt-water intrusion barriers, and development of modest irrigation facilities.

Under the optimum use of land (base V), 400,000 M/T of rice could be exported. In this optimum solution, 80% of all crop land would be used for rice production and the area using high-yielding varieties would be double the 1971 level or about 1.5 million hectares. The annual trade deficit would be reduced by about one-half and grain, sugar and vegetable oil imports would be eliminated.

This brief summary has been included as background only. Domestic and world prices and the foreign exchange rate have increased so drastically that the income projections of the study should be up-dated. In addition, unless some important assumptions used in estimating input costs materialize the development cannot proceed very rapidly. An important one is a cessation of hostilities and demobilization of the armed forces, which would release labor for farming. This assumption biased the study in favor of labor-intensive farming. Consequently, animal power was recommended in favor of most farm mechanization, although mechanized threshers and hullers were recommended.

With continued hostilities and seasonal shortages of farm labor, the actual trend has been toward greater farm mechanization. With double cropping of rice and the use of the new high-yielding varieties, mechanization is required, especially in harvesting and land preparation because of the limited time between crops.

The production and yield calculations, however, are still the best data available, and can be used in looking at potentials in the country.

The higher incomes made possible in the model would increase domestic consumption, which unless curtailed would reduce supplies available for export, and resources available for development. Alternative courses of action to prevent or limit increased consumption might be programs to increase farm taxes and savings and to adjust domestic pricing policies.

The study recognized many possible land resource combinations which could be selected to achieve goals other than maximizing agricultural income. Important among these was a schedule for optimizing land development through flood control in the coastal regions and by relatively large-scale irrigation projects in the Delta. It was assumed that 200,000 additional hectares of irrigated land could be brought under cultivation.

The optimum solutions for large irrigation and flood control projects would require a long range period of development, extending beyond 8 to 10 years, and would require large outlays of capital. However, this solution would permit greater expansion of the HYV rice production area without replacing floating rice, and peak production and export levels of rice would be achieved (about 1.2 million M/T of rice exports).

The GVN has not specifically endorsed the study but there is evidence that some of the policy measures implicit in it are influencing planning in the Ministry of Agriculture; i.e., the 5-year Post War Development Plan. The schedule of resource use has certainly influenced thinking in the Ministry. The GVN policy emphasis on bringing abandoned and new land under cultivation by reclamation projects, flood and salt-water intrusion control and irrigation development are indications of this influence.

4. Production Situation by Crop

Rice, by far the most important crop, accounts for an estimated 2.7 million hectares of cultivated land in the country. About 80% of the rice is grown in the Delta. On the balance of the land, rubber, tea, coffee, coconut, sugarcane, corn, manioc, sweet potatoes, peanuts, fruits, and vegetables are grown.

Table 3 shows the areas planted and production of the principal crops for crop years 1971-72, 1972-73, and 1973-74.

a. Rice

Rice is the most important commodity in South Vietnam, currently producing an annual farm gate value of over one billion U.S. dollars, and about 50% of the total value of farm production.

Paddy production declined from 1965 to 1969 when it reached a low of just over 4.3 million metric tons. Production has increased annually since 1969. USAID estimates production at 6.6 million metric tons in 1973/1974.

Table 3

Area & Production of Principal Crops 1971-74

Item	1971-72 crop year Area (Hectare)	1971-72 crop year Production MT	1972-73 crop year Area (Hectare)	1972-73 crop year Production MT	1973-74 crop year Area (Hectare)	1973-74 crop year Production MT
Rice 1/	2,625,300	6,324,000	2,700,000	6,348,200	2,770,000	6,600,000
Sorghum	14,077	21,000	18,000	21,000	11,000	14,000
Corn	31,000	33,750	35,500	41,700	39,600	50,500
Sugarcane	12,600	340,500	12,400	331,000	17,400	529,900
Soybean	7,700	8,400	8,300	6,400	11,150	10,600
Mungbean	17,800	13,000	18,700	13,800	14,850	10,300
Peanuts	34,400	37,000	35,200	38,900	39,200	44,800
Rubber						
Planted 2/	103,000		83,300		68,340	
Producing	46,500	57,500	20,000	20,000	24,700	19,500
Coffee	9,500	4,400	8,500	3,900	8,870	5,120
Tea	8,460	5,800	7,960	5,100	7,380	6,250
Manioc	35,800	270,000	32,100	247,300	47,780	379,700
Coconut	33,500	125,000	29,300	116,300	33,460	133,600
Bananas	21,000	215,400	25,100	248,000	26,220	258,000
Kenaf	30	20	100	100		
Jute	130	135	130	130		

1/ The production figures represent USAID adjustments. Published figures for 71-72, 72-73, and 73-74 are 6,324,000, 6,348,000 and 7,025,000 respectively.

2/ Includes Michelan plantation under VC control and some abandoned plantations.

Table 4

Paddy Rice Production

(000 metric tons)

1964	1965	1966	1967	1968	1969	1970	1971*	1972*	1973*	1974*
5,327	5,185	4,822	4,336	4,688	4,366	5,115	5,716	6,324	6,348	7,025

SOURCE: GVN (Official Estimates)

*USAID est. 1971 = 5.5 mill
1972 = 6.1 mill
1973 = 5.9 mill
1974 = 6.6 mill

Table 5

Vietnam Rice Imports Since 1964

(000 M/Ts)

1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
129	434	750	678	336	559	137	276	260	308

SOURCE: USAID

The rapid increase of production since 1969 was due to the GVN program initiated in 1967-68 with USAID assistance for introducing high yielding varieties (HYVs) of rice developed at the International Rice Research Institute (IRRI) in the Philippines. These HYVs can yield two to four times more rice per hectare than local varieties. They also have shorter maturing periods than local varieties, which makes possible more than one crop annually. Rice farmers are now using HYVs, along with fertilizer, insecticides, and improved farming techniques on about 850,000 hectares yielding an average of 3.8 M/T per hectare. There is potential for further yield increases if more fertilizer and pesticides are applied and through better farming and irrigation practices.

The total potential area for growing HYVs is estimated at about 1.5 million hectares.

There remains 1.85 million hectares of riceland where traditional local varieties are grown. Floating rice is grown on about 500,000 of these hectares which flood annually. The rice is planted in May and harvested in November and December. Deep water rice (of intermediate stature) also is grown in large areas of the Delta.

Only 50% of the total land resources offering agricultural potential is being used. This estimate includes land which could be double cropped. In other words, there is potential for expanding the existing 3 million hectares currently being cropped to 6.6 million hectares by large investments in long term development projects such as: drainage and reclamation of swamps; construction of large barriers for salt-water intrusion; and large irrigation and drainage projects.

Expansion of irrigation, chiefly by low-lift pumps, in the short run offers considerable potential for increasing production of rice. Potentially 500,000 hectares of floating, low-yielding rice, grown only during the wet season, can be replaced with two crops of high-yielding varieties grown in the period between the floods, using low-lift pumps to pump water from the Mekong River and its tributaries. In this system, yields can be increased from the current average of 1.5 M/T per hectare per year with one crop of floating rice to 8 M/T per hectare per year with two crops of high-yielding varieties. This potential production of 4.0 million M/T of paddy rice would be 3.25 million more than is produced with floating rice. Such an increase could permit exports of about 2.85 million M/T of paddy (or 1.7 million M/T of milled rice), assuming that 7.0 million M/T of paddy is sufficient to satisfy domestic requirements. The export value of 1.7 million M/T of rice is about $750 million at current international prices ($450 per M/T).

The real potential for increasing rice production in the Delta may be even greater than the estimates shown above. Practically all of the 2 million hectares now under cultivation could be irrigated and double cropped. However, additional engineering studies would be required to determine the influence of this water use on the entire Lower Mekong basin, and to assess requirements and estimate costs for constructing additional salt water intrusion barriers, transportation locks, and drainage and water distribution systems.

The GVN's rice program for 1974-75 aims to increase rice production by:

- introducing low-lift pumps in the Mekong Delta and Central Coastal Lowlands on 5,000 hectares (with a goal of 50,000 hectares over a 3-year period) to expand irrigation for double-cropping of the high-yielding varieties of rice;

- rehabilitating small and medium-sized irrigation systems;

- reconstructing old and constructing new salt-water intrusion barriers in the Mekong Delta;

- increasing yiels on 850,000 hectares of high-yielding varieties (TN) of rice;

- improving on-farm and commercial storage, milling and drying facilities;

- maintaining paddy prices at incentive levels for farmers:

- supporting a fertilizer subsidy program to keep prices to farmers at incentive levels; assuring the availability of fertilizer, insecticides, fuels, and other farm inputs, and intensify adaptive research on rice.

However, to maintain export levels it will be necessary to increase rice production each year sufficiently to satisfy demands of a 3% per year population growth.

b. Feed Grains (Sorghum, Corn, and Oil Seed Crop) Production

Sorghum was introduced in Vietnam with USAID assistance. Sorghum is not an important grain crop as yet in South Vietnam but its production and demand potentials are good. If produced in quantity, sorghum would replace consumption of rice by livestock. A large swine industry accounts for approximately 15% of the farm gate value of agricultural products. Poultry, principally ducks, is another important industry for meat and for duck feathers which are exported. Fish farming is also important. All of these industries are grain consumers which offer potential markets for sorghum.

Production is concentrated in the extensive floating rice area of the Delta, where it was discovered that sorghum could be grown following the rice harvest by utilizing residual moisture left from receding flood waters. Production in the 1972-73 crop was 21,000 metric tons.

In 1973-74 production of sorghum declined to 14,000 metric tons, but is now considered to be a more sound industry. The decline was caused by a lack of available seeds. Previously, the seed had been imported and distributed free of cost by GVN. This year for the first time the seeds were produced and sold commercially. About one-half of the 1973-74 sorghum crop will be utilized by fish cage farmers in the Delta and the remaining half for livestock feed and human consumption. The GVN's immediate goal for sorghum is to expand the area planted to 20,000 hectares. AID is assisting this program.

During the late 1930's corn was grown for export to France and other European countries; however, the production of feed grains for in-country use was never well established. Traditional livestock carbohydrate feeds consist of rice, broken rice, rice bran, brewers rice and manioc. In 1973 between 10,000 and 15,000 metric tons of corn were sold by farmers to the livestock feed industries, a direct result of the introduction in 1970 of new varieties. Both area planted and production have increased rapidly, and corn can become an important enterprise in the economy, with large quantities for export. No additional corn will be imported. Republic of China (Taiwan) is assisting in this program.

Soybean and peanut production could increase if new land were opened and farm units are large enough, to a point where there would be a surplus for export. And, domestic edible oil requirements could be met. Imports of vegetable oil and oilseed meal have practically ceased because of high world prices.

c. <u>Rubber Production</u>

Rubber ranked second after rice as the most valuable crop and source of foreign exchange in 1963. There were 143,000 hectares planted at that time with an annual production of 76,000 metric tons. Lack of security, war damage and a shortage of labor adversely affected this crop. The area planted was reduced to 83,000 hectares by 1972, with production at about 50% of previous levels. Until recently there was little incentive to expand or even maintain rubber production because of low world prices and the low exchange rate. However, in the past two years the world price of rubber has increased and the exchange rate has gone up almost 6 fold. Interest in rubber by large companies has greatly increased.

Land suitable for expanding this industry is available. There are large areas of upland soils not presently in cultivation which would contribute more to the economy if planted to rubber trees than any other crop. Rubber trees require seven to eight years to begin yielding latex. This long waiting period deters investments by Vietnamese farmers even though credit is extended with a grace period. Large companies on the other hand would go ahead with expansion if hostilities eased.

USAID does not have a technical assistance program for rubber. The French Government has evidenced a strong interest in this industry because of the many French-owned plantations in South Vietnam. Short term technical assistance has been provided through a team financed by the Asian Development Bank. Some additional manufacturing such as battery cases is planned which will permit greater import substitution.

d. Sugarcane Production

Sugarcane production reached a high of more than one million tons in 1965 and Vietnam was essentially self-sufficient in sugar except for industrial uses. Since then production declined to 330,000 metric tons in 1972-73. During the war many sugarcane fields were burned and new plantings were discouraged in order to deny cover to the Viet Cong. Also, domestic production could not compete with cheap imports. Also, the only sugarcane crushing and refining facility was seriously damaged and made inoperable by the war. Two modern crushers built later have never operated. During this same period per capita sugar consumption doubled to about 16 kilograms. Since 1965, the major part of sugar consumption has been met by imports. Foreign exchange costs reached as high as US$57.8 million in 1973. Imports were prohibited in 1974.

Plans have been made to increase sugarcane plantings from the 12,000 hectares in 1972 to 50,000 hectares by 1977. Vietnam has not processed sugarcane since 1967, although imported raw sugar has been refined. Artisian sugar production which once reached 100,000 M/T per year decreased to a few thousand tons because of competitive cheap imports and war related restraints. Presently artisian sugar mills are booming with their product bringing about 60 cents per pound.

The soil and climatic conditions in Vietnam are suitable for sugarcane production but yields have been low, averaging less than 35 tons per hectare. On the more productive irrigated soils, two or three crops of rice can be grown over the time period needed to grow one crop of sugarcane. Therefore, rice has been a more profitable crop for farmers than sugarcane. The successful development of a modern sugar industry in Vietnam will require more financial incentive to farmers than is presently offered. If current world sugar prices hold up this should be easy.

A number of improvements are needed in the production and processing of sugarcane including the development of improved sugarcane varieties that will permit increased cane yields and more economical and timely methods of harvesting and transporting cane. In addition, sugarcane production should be concentrated near processing facilities and additional research on the various soils identified as the most suitable for sugarcane production will be necessary. Some studies indicate cane should be grown on upland non-irrigated soils where it is most competitive.

USAID does not have a sugarcane project and is not offering technical assistance to this industry although policy guidance has been given. The Chinese Agricultural Technical Mission has two sugarcane production specialists who work part-time with this industry. There are also two full-time sugar specialists from the Taiwan Sugar Company who provide technical assistance directly to the Vietnam Sugar Co.

e. Fruits and Vegetables

Banana production in South Vietnam is small. In 1973, there were 26,220 hectares planted, which produced 258,000 M/T. This represents a modest increase in both area and production since 1971. Appropriate varieties, quality control, and efficient processing facilities and a sophisticated marketing organization are mandatory if bananas are to be exported. Long Khanh Province has been selected to produce bananas for export. The potential for exports is excellent.

Major fruit producing areas are located in the provinces along the Mekong and MR-3. Pineapple production is centered in the Kien Giang area on the southwest coast of the Delta and in Long An in MR-3.

Vegetable production in 1972 was estimated to be approximately 700,000 metric tons. This includes sweet potatoes and manioc which are utilized for both human consumption and livestock feed. Commercial production of vegetables has increased rapidly over the past five years. Dalat is the largest center with an annual production of 200,000 metric tons. Approximately 95% of the Dalat production is shipped by truck to urban centers with most of it going to Saigon.

Although vegetables and fruits are important crops to the domestic economy of Vietnam, their production consumes a significant amount of petroleum products and most of the fertilizer not used on rice. It is estimated that there are 75,000 3-horse power centrifugal pumps used for irrigating vegetables by sprinkling. The estimated annual consumption of gasoline for these pumps is 30,000,000 liters (190,000 barrels), costing $2.4 million C&F, at current prices.

f. Wheat and Cotton

Although Vietnamese farmers have little experience with wheat and cotton, information on production of these crops under similar soil and climatic conditions elsewhere indicates that they should be tested.

Successful cotton production appears to be possible in a relatively short period. Wheat, on the other hand, may require several years of adaptive research. USAID has no program.

5. Livestock Production Situation and Opportunities

When Vietnam attained its independence, the livestock industry was in a critical state. The animal population had been depleted by years of war. Local breeds were of poor quality, animal diseases were widespread and unchecked, sanitation facilities were badly neglected or non-existent and there was an acute shortage of government services. Starting in 1955 with the assistance of USAID, the livestock industry was improved. Animal production increased and government services expanded by the establishment of research and demonstration centers for livestock raisers.

The Institute of Bacteriology was formed during this period to produce animal vaccines. At present, it is producing most of the required vaccines and major livestock epidemic diseases are under control.

Improved lines of swine and poultry are widespread throughout Vietnam, as well as the utilization of improved livestock management practices.

Within the agriculture sector, livestock is surpassed only by paddy rice in economic importance. Livestock, mostly swine and poultry, is raised everywhere in Vietnam, but mostly in the rice surplus areas of the Delta. Swine production is responsible for over 50% of the total value of animal production (estimated at $250 million in 1973) and accounts for about 15% of the farm gate value of all agricultural products. In 1972, the population was an estimated 4.6 million as compared to 2.9 million in 1967. Pork is the favorite meat of South Vietnam and pig fat the most important cooking oil. Unfortunately, swine are fed some paddy rice which is uneconomical to Vietnam, albeit economical for farmers, in view of the high price that rice could bring on the international market.

Ducks are important in lowland areas, providing eggs and meat for local consumption and feathers for export. Scavenger chickens are common to all village households. Swine and poultry are also raised commercially in urban areas. Cattle and buffalo provide farm draft power and yield meat as a by-product after their working life. Both species have declined drastically in recent years as a consequence of war and farm mechanization.

Swine and poultry production reached a peak in 1972, when the industry suffered a major blow with the disappearance of the U.S. military market in South Vietnam. This loss contributed to an 18% decline in commercial swine production and a 20% decline in commercial poultry production in 1973.

Studies indicate that Vietnam has no immediate potential for competing in international markets in the export of livestock or meat since South Vietnam has depended on imported feed grains. Feed grains are no longer imported and the situation could change if grain production is increased sufficiently to support a commercial livestock industry. However, adequate animal health control measures would be necessary to meet sanitary requirements of importing countries. Although Vietnam has stopped livestock disease epidemics, it has made limited progress in husbandry practices to improve animal health and hygiene.

The present livestock industry is mainly traditional, small farm production to meet domestic demand.

6. Fishery Production and Opportunities

Resource Base

The 50,000 square miles of shallow coastal waters and the thousands of miles of rivers and canals in Vietnam contain sufficient fish, crustaceans and mollusks to satisfy most of the animal protein needs of the people of Vietnam. High-value species such as shrimp and lobster are excellent potential foreign exchange earners for the country.

The fishing industry employs about 355,000 fishermen who man some 92,000 boats. In addition it provides employment for an estimated 20,000 employees in more than 50 fish processing plants (freezing, canning, preparing fish meal, and producing specialty items) and in the hundreds of traditional nuoc mam (fish sauce),cured fish and dried fish plants; and an estimated 200,000 involved in handling fishery products at the ports, in the transportation of products and in marketing.

Current State of Development

The present state of development of the fisheries industry is spotty, with some efficient and modern sectors while others are still relatively primitive. Shrimp processing for export is the most promising with a number of plants producing frozen shrimp that meets U.S. standards. Fleet operations are generally unsatisfactory, with most boats underpowered, inadequately refrigerated, and unsanitary. Transportation, handling and marketing facilities and practices leave much to be desired. Losses due to poor handling and unsanitary practices are relatively heavy and therefore the costs to the consumer, especially in the inland areas, are unnecessarily high. The present high cost of fuel has curtailed production recently.

Table 6 presents a summary of the basic statistics regarding Vietnam's commercial fisheries for the past nine years. In the five years since 1968, the number of fishermen has increased about 5% per year, the

Table 6 - Summary of South Vietnam's Fishery Industry for Period 1965-1974

Item	Unit	1965	1966	1967	1968	1969	1970	1971	1972	1973	Jan-Aug 1974
Fisherman	1,000	243	254	270	272	277	317	336	343	355	
Fishing boats:											
Non-motorized	1,000	46.2	48.4	53.0	48.0	43.0	45.6	42.6	39.8	28.6	
Motorized	1,000	12.2	16.8	23.2	30.0	39.0	42.6	48.8	56.2	63.7	
Fish catch:											
Marine	1,000 tons	289	287	319	322	355	392	435	501	509	
Fresh water	1,000 tons	57	65	59	51	64	64	71	82	91	
Shrimp, crab, mollusc	"	29	28	32	37	45	61	81	95	114	
Total		375	380	410	410	464	517	587	678	714	
Processed fish products:											
Nuoc Mam (fish sauce)	mil liters	57	59	61	59	61	64	70	69	64	
Dried	1,000 tons	17	16	15	20	21	28	42	51	46	
Cured	1,000 tons	28	30	35	25	30	34	87	46	47	
Exports (Quantity):											
Shrimp	Tons	700	621	432	78	49	26	185	1,727	3,840	4,567
Fish	"	233	165	188	-	-	-	204	446	269	99
Fish meal	"	-	-	-	-	-	-	-	-	1,582	1,138
Other sauce	1,000 liters	-	-	-	-	-	-	85	128	390	767
Fish sauce	1,000 liters	-	-	-	-	-	-	85	123	193	139
Exports (Value):											
Shrimp	1,000 US$	813	697	495	141	70	27	462	5,358	12,661	15,761
Fish	"	94	67	74	-	-	-	201	330	120	173
Fish meal	"	-	-	-	-	-	-	-	-	601	427
Fish sauce	"	-	-	-	-	-	-	68	48	86	92
Other	"	-	-	-	-	-	-	-	5	420	1,543
Total		907	764	569	141	70	27	731	5,741	13,888	17,996

SOURCE: Directorate of Fisheries except for exports of fish meal.
Fish meal from Customs Directorate

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number of boats about 3% per year, and the total catch about 10% per year. The increased productivity per fisherman and per boat is largely the result of the marked increase in the proportion of boats that are motorized, which rose from 39% in 1968 to 69% in 1973. The increased productivity can also be attributed to the availability and use of improved fishing gear and techniques.

The most noteworthy development has been the increase in fishery export earnings, rising from $27,000 in 1970 to almost $18 million in the first eight months of 1974. Exports in earlier years were without benefit of customs because the low exchange rates forced illegal trading.

Goals

The GVN has set a goal of increasing total production by up to 15% per year. One published goal projected over 1,300,000 M/T of fish by 1978, sufficient to satisfy domestic demand and earn about $100 million foreign exchange annually. This goal is over-optimistic. However, total production could reach a million tons and exports $50 million by 1978 with further motorization of fishing vessels (including installation of larger engines in present boats); with the adoption of more modern fishing gear; improvements in port facilities, especially installation of cold storages at several ports; with increased availability of refrigerated transport; and with more efficient use of processing plants. This would mean a 7% increase in catch per year, and production for export would be about double the current (1974) rate.

Production and Processing

In order to attain the goal of 7% increase in fishery landings, it is estimated that the numbers employed in fishing, handling, transportation and marketing will need to increase by about 4%. It is assumed that improvements in boats and shore equipment will improve the productivity rate and the efficiency of operation.

The total number of fishing craft need not increase and may decrease somewhat, but each year there will be a need for approximately 4,000 new boats to replace those that are retired because of age and inefficiency. The new boats will require more power than those replaced, and the power on some of the presently motorized boats will need to be raised. New engine requirements will be approximately 8,000 per year. Until the cost of fuel becomes more reasonable, and until new resources are exploited with more effective fishing methods so that large fishing vessels can operate profitably, most of the new boats will be in the 5 to 50 gross ton range.

The establishment of freezing-processing firms and plants has considerably exceeded current demand. In 1971 there were two plants, with daily freezing capacity of about 10 M/T, employing about 200. In September 1974, 25 companies were operating with freezing capacity of about 120 M/T per day, and employing around 4,000 persons.

The present plants could process two to three times the quantities of fishery products necessary to meet the proposed 1978 goal of $50 million. Unfortunately most of the plants, especially those in the Saigon area, are not in the right places. Thus some new freezing-processing plants will be required in several of the major fishing ports in order to assure better quality of frozen products. Additionally, each of the major ports and several of the ports with moderate landings will need cold storages, and a few ports will need increased ice producing capacity.

Fish meal production capacity is far in excess of the present and foreseeable levels of raw material supplies. No new fish meal plants should be considered for any location in Vietnam unless major increases are attained in the supply of fish.

The six canneries, all located in the Saigon-Cholon-Bien Hoa area, have more than sufficient capacity to process the maximum amount of raw material expected to be available in the near future. However, a few of these plants will require moderate investments in new equipment in order to meet recognized product quality standards.

7. Forestry Production and Opportunities

Resource Base

It has been estimated that 12 million hectares, three-fourths of the total land area of Vietnam, is forest land with about 5.6 million hectares of commercially valuable stands. Properly developed and managed these forests can supply not only all foreseeable domestic needs for wood but also can provide raw material for a forest product export business which could exceed US$100 million annually on a sustained basis. There is some indication that a strong world market for forest products will continue to exist and will increase steadily over time.

The USAID forestry assistance program began in 1967 with the basic objective of increasing forest products production to meet domestic needs and provide jobs to strengthen the local economy. Except for a few specific products such as treated power poles and timbers, this objective has been met with legal log production rising from a low of 207,000 cubic meters (m^3) in 1967 to an estimated 746,000m^3 in 1974.

As production increased and in-country shortages decreased, emphasis was shifted to developing export potential in keeping with GVN goals. Log exports began in 1971 with the total value for that year amounting to US$240,000. Wood product exports in 1973 totalled US$13 million, and during the first 7 months of 1974 exports increased over the same period in 1973 in spite of a declining world market for some products.

Conservation Measures

After a war-time lapse of several years, a modest re-forestration program began in 1971. In 1972, 1,200 hectares of trees were planted and in 1973 the figure exceeded 6,000 hectares. The GVN has programmed 17,000 hectares for 1974. While this represents a good beginning, it only touches the problem. A major, accelerated, continuing re-forestration program of perhaps 100,000 hectares per year is needed to repair the damage to the forests caused by war activity, uncontrolled fires, indiscriminate cutting and other land abuses.

Production Goals and Short-term Needs

The Ministry of Agriculture has established a tentative annual allowable cut of 3.3 million cubic meters and has set a projected goal for exports of US$100 million to be reached before 1980. Export goals projected by USAID for the next 3 years include: 1974, US$19 million; 1975, US$30 million; 1976, US$45 million. The GVN forecast for this period is somewhat higher.

Present Capabilities and Short-Term Needs

At the present time the production capacity of the logging equipment on hand (600 trucks, 50 tractors, etc.) is approximately one million cubic meters of logs annually. An estimated 1,150,000m^3 of logs can be utilized annually by the established wood products manufacturing industry (1,098 small head-rig saws, 2 plywood plants, 1 ground-wood pulp plant, 1 particle board plant, etc.).

From this it is clear that in-country production capacity is being rapidly approached. A major modernization and expansion must occur in the next 2-3 years to raise production from the present 746,000m^3 level to the GVN announced goal of 3.3 million cubic meters before 1980. New modern sawmills will be required for large scale lumber exports.

8. Agricultural Business

Principal agricultural-business industries include livestock and poultry processing, feed mills, rice storage and processing, sugar mills, starch processing, wheat flour, infant foods, and edible oils. Production capacities of existing facilities are shown in Table 7.

Table 7

Estimated existing capacity of processing and marketing Facilities (Bolton Report) (As of 1971)

Item	Total Metric Tons Thousands
Rice mill	6,960 (Paddy)
Grain storage	2,345
Sugar mill	600
Sugar refinery	290
Flour mill	186
Feed mill	350
Rubber processing	50
Tobacco processing	20
Kenaf-Jute processing	4
Tea processing	5
Pork processing*	500
Beef processing*	146

* Live weight

Source: USDA/ERS - Field Report No. 41

Livestock & Poultry Processing: Significant developments have been made in the commercial livestock and poultry industries since 1965. Fifty or more modern poultry hatcheries have established, producing 15 million chicks per year for the broiler and egg producing industries. A commercial livestock and poultry industry, originally based primarily on imported corn, has been established. Domestic feeds are now used.

The 1971 capacity for pork processing was 500,000 M/T, and for beef 146,000 M/T. Total slaughtering in 1973 was 2,862,000 head as compared to 3,065,000 head in 1972.

Cattle and buffalo slaughtering remains small, consisting primarily of work animals killed because of age or other reasons.

USAID estimates that total poultry slaughtering in 1973 declined 20% due to the loss of the U.S. military market. However, published GVN figures showed an increase of 5,400 M/T of chickens slaughtered in 1973 over 1972 (37,900 M/T to 43,300 M/T of liveweight respectively).

Duck slaughtering also increased in 1973 by 3,000 M/T to a total of 40,000 M/T liveweight. Likewise, production of eggs continued

Table 8

New Facilities Required Under Five Land Resource Situations

Facilities	Unit Capacity 1/	I Existing	II Abandoned	III Salt Intrusion	IV Irrigation	V Additional
		Land Resource Situation				
	1000 M/T	Units				
Rice mill	10.4	4.0	10.0	5.0	7.0	16.0
Rice drying	3.0	62.0	64.0	94.0	93.0	119.0
Grain storage	3.0	148.0	307.0	306.0	336.0	878.0
Thresher sheller	1.0	391.0	535.0	500.0	487.0	1,875.0
Oilseed mill	57.0	1.0	2.0	3.0	3.0	4.0
Feed mill	13.0	12.0	12.0	9.0	9.0	20.0
Sugar refinery	100.0	--	0.2	0.2	0.2	0.6
Sugar mill	450.0	--	--	--	--	6.6
Rubber processing	1.0	95.0	126.0	126.0	126.0	170.0
Kenaf processing	2.5	3.0	3.0	3.0	3.0	3.0
Tobacco processing	10.0	1.0	1.0	1.0	1.0	1.0
Tea processing	0.2	2.0	2.0	2.0	2.0	2.0

1/ Annual basis

Source: USDA/ERS - Field Report No. 41

to increase: 302 million chicken eggs in 1973 up 22% from 1972, and 327 million duck eggs in 1973, up 10% from the previous year. The value of duck feather exports was $1.2 million in 1973 compared to $0.5 million in 1972.

Feed Mills: Modern feed mills with a total capacity in excess of 350,000 metric tons per year had been established by 1974 to process imported corn for the commercial livestock and poultry industries.

Corn and other feed ingredient imports (CIP and PL 480) declined from a high of 108,030 M/T in 1970 to a negligible amount in 1974. No imports of corn are scheduled.

As a consequence of high raw materials prices most feed mills have closed operations or are operating at a small percentage of capacity to process the small amount of remaining imports and local products, most of which is for poultry feed. Many commerical livestock producers are processing their own feed.

Rice Storage & Processing Facilities: Drying of rice is presently done by farmers on the roads in the sun. With the development of double cropping, mechanical or other methods of air drying will be required as harvest of at least one crop is likely during the rainy season. Planting dates might be adjusted in some areas to alleviate part of the drying problem and the possible introduction of rice varieties with shorter maturing times than the current TN varieties of 120 days may alleviate the problem. However, drying of one crop of the TN variety will be necessary in the Delta 1/.

The introduction of TN varieties has reduced the traditional November-February peak demands for storage facilities, but the increased amount of milled rice entering commercial channels, resulting from increased production, will require additional commerical storage as well as transportation 2/.

Jones and Niernberger emphasized the need for improving the quality of all storage. The majority of warehouses are old and in need of repairs. Many have dirt floors. Losses in the rice were valued at almost half the total storage cost. The loss would increase with increased storage time. Losses could be reduced by improving warehouses and maintenance, by insect control, and by improving the storage quality of rice (better drying and milling).

The National Institute of Statistics had records of 1,537 licensed rice mills in 1968. According to Jones & Niernberger, these mills produced 1,497,000 M/Ts of milled rice in 1968. USAID estimated

1/ Grain Marketing in South Vietnam
FDP Field Report No. 19, Nov. 1972, by Amos D. Jones and Floyd F. Niernberger, International Development Center, ERS, U.S.D.A.

2/ Economic and Engineering Study Grain Storage and Marketing System in Vietnam
Wildman Agricultural Research Inc., Toledo, Ohio - March 1970.

that 2,208,000 M/T were milled in the 1968-69 crop year. Licensed mills operate less than 120 days (10 hours per day for each machine). Jones & Niernberger estimated that unlicensed mills produce an addition 700,000 M/T of milled rice per year. They concluded that South Vietnam had excess milling capacity for production at that time. This estimate was based on the potential of the licensed mills operating 260 days and one extra shift for 120 of these days.

Sugar Mills: Sugarcane is consumed directly, i.e., as sugarcane, juice, or artisan raw sugar. Of imported sugar soft drinks, sweet condensed milk, and pharmaceuticals use about 20 percent, some sugar is used in bread for leavening. The rest is consumed by general population. Molasses, a by-product from both cane mills and refineries is used in the production of rum and as an ingredient for the manufacture of monosodium glutamate (MSG).

There are three centrifugal sugar mills in South Vietnam for processing cane. They have a combined capacity to process 600,000 M/T of sugarcane per year, yielding 50,000 M/T of "plantation white" sugar. There is also a refinery (Bien Hoa) which produces 120,000 M/T of refined sugar from raw and several plants which produce brown sugar only from raw sugar.

Adjacent to the Bien Hoa plant is an alcohol and rum distillery plant. The distillery has a capacity of 5,000 liters of pure alcohol per day. There is also a factory which can produce 10,000 kenaf bags per day. The other bag factory in Saigon has about same capacity.

In addition there are hundreds of artisan sugar mills with capacities of 5 to 10 tons of cane per day. This type of mill has been expanding in numbers and activities since the price of artisan sugar has risen to nearly 850 VN$/kilo.

Starch Processing: There is a potential offered by the local production of starch from manioc (cassava). Manioc is easily grown in South Vietnam and its production could be increased into a significant starch industry. Starch now is made from manioc in a home process for direct consumption, for use in producing monosodium glutamate, and as a starter for making glucose syrup.

There are possibilities for substituting starch mixtures for sugar, and starch for textile processing, paper coating, adhesives, brewing, confectionery, baking, fermentation (for making monosodium glutamate and yeast), soft drinks, and animal feeds.

Manioc starch could be used as a starter for sweeteners which have consumed $6 million in imports of sugar (10% of 1973 sugar imports). It could also replace about 80% of the molasses used in making MSG and bakers yeast. MSG made from local manioc starch could be exported if it met international standards of quality and price. Also, yeast produced locally from manioc starch could eliminate about $1 million in imports annually.

Edible Oils: Pig fat is preferred to vegetable oil for cooking. The development of vegetable oil production has been suggested to substitute for animal fats for human consumption and export. The principal vegetable oils produced in Vietnam are from coconut and peanut although most of these crops are consumed directly.

B. Goals

1. Increase rice production to the export level and further increase forestry and fishery products exports.

2. Increase incomes of small agriculture producers, improve their quality of life and increase employment opportunities.

3. Strengthen the financial structure of the Agricultural Development Bank and thereby enhance its ability to attract other donor financing, and strengthen the institutional capability of the agriculture sector in general.

C. Constraints

Constraints on agriculture production, while seemingly imposing, are not limiting but do increase costs and prices. If constraints were eliminated or eased, Vietnamese exports would be that much more competitive in world markets. Also, domestic consumer prices would be lower without decreasing farm gate prices.

1. Decreasing Profitability

a. Rice

The ratio of net returns to costs of those farmers using recommended practices, even when fertilizer cost is subsidized, are considerably lower than in recent years. The table below represents a typical rice growing operation in the 17 provinces of the Delta Region.

Table 9

Return/Cost Ratios
Delta High Yield Variety Rice
Dry & Wet Seasons
1972/73 - 1974/75

	1972-73	1973-74	1974-75 With Fertilizer Subsidy	1974-75 No Fertilizer Subsidy
Ratio between (a) expected gross returns less cash and irrigation costs and (b) total cash cost with all recommended practices				
Dry season crop	7.4	6.5	4.8	3.4
Wet season crop	6.4	4.5	4.1	2.9
Ratio between (a) increased net return when recommended practices are used instead of traditional practices and (b) the increased cost (pre-harvest) of using recommended practices instead of traditional practices				
Dry season crop	4.5	4.1	2.8	1.4
Wet season crop	6.3	3.9	3.4	1.8

Source: ADFA/AES

The conclusion from the above figures is that ratios of expected net returns to costs based on recommended practices, even with the fertilizer subsidy for the coming crop, are projected to be considerably lower than in recent years. A ratio of 4 to 1 for the type of ratio shown above generally is considered a minimum to encourage full use of cash inputs. With fertilizer subsidization at the projected level, the ratio for the 1975 wet season crop may just about equal 4 to 1. Without the subsidy, a ratio considerably below 4 to 1 likely would prevail for both the dry and wet season crops. Field reports indicate that a cut-back in fertilizer took place in the wet season and additional cutbacks would occur in the dry season without a subsidy.

b. Fisheries

The fishing industry is experiencing a very serious cost-price squeeze that is adversely affecting its profitability.

(1) Diesel fuel costs have increased 170 percent in the last 1½ years from VN$35 in early 1973 to VN$95 per liter. This alone increased

the fisherman's catch cost 25 percent. Fuel costs in Vietnam are much higher than those of neighboring countries harvesting the same kind of fish, placing Vietnamese fishermen at a comparative disadvantage.

(2) The cost of ice, nets and other materials used by the industry and the costs of handling, processing and distributing have also risen dramatically.

(3) The export market has been adversely affected by world-wide increases in the supply of shrimp and fish meal, Vietnam's two major fishery exports, and world market prices for these items have dropped significantly.

The estimated operating costs of an average Vietnamese trawling operation - utilizing trawlers of 20 gross tons and larger - show the following breakdown for a metric ton of fish landed in 1973 and 1974 respectively 1/. The large increase in 1974 costs primarily reflect the increased price of diesel fuel.

Cost	1973	1974
Fuel, 700 liters	26,600	66,500
Crew salary and subsistence	36,000	36,000
Ice	4,000	12,000
Maintenance and gear replacement	14,000	18,000
Value Added Tax @ 10%	16,000	16,000
Total operating costs	96,600	148,500
Landed value of fish	125,000	160,000
Profit per metric ton	38,400	11,500

1/ Source: U.S. Department of Agriculture study and confirmed by fleet operators.

The above breakdown does not include fixed costs such as amortization, interest, depreciation, insurance, and shoreside management expenses. These costs must be paid whether or not the boat operates. With fuel costs at VN$95/liter the net profits of the boats now operating vary from negative figures up to levels which, while in the black, do not encourage investment in improved boats and equipment. If fuel costs were VN$65/liter, which would be comparable to prices paid in other countries in Southeast Asia, the fishing operations would be sufficiently profitable to encourage needed modernization.

While the price of shripm, the primary export, has dropped in world markets the value of landed shrimp in Vietnam has increased because of quality improvements in handling and processing.

c. Forestry

With the exception of a limited quantity of luxury species and hardwood timber produced within 150/km of Saigon, the forest industries of Vietnam supply species of hardwood logs and lumber which cannot compete in present world markets due to high domestic costs. The following current cost-price data per cubic meter on timber moving from the central highlands to Saigon for export illustrate the problem:

Export costs per Cubic Meter

(1) Cost of logs per cubic meter (m^3)

- Felling timber and removal to GVN scaling yard areas: US$13.43 to US$17.91		US$16.41 1/
- Stumpage and related taxes per m^3		US$13.52
Cutting license fee	US$1.20	
Stumpage (payment for standing timber)	6.72	
Reforestation surcharge	1.68	
Province tax	1.68	
Other miscellaneous tax	2.24	
- Highway transport (per m^3)		US$29.85 2/
Highway transport from the central highland to the Saigon area range from US$26.68 to US$32.83 with average of US$29.85.		
Total cost of logs per m^3 delivered to sawmills in Saigon area:		US$59.78 3/

1/ It should be noted the cost including a normal profit would be US$4.00 per cubic meter. The balance of US$12.41 goes to extraordinary expenses necessary to operation in the war zone.

2/ Unofficial costs amount to a reported 33% to 40% of the total transport cost.

3/ All processed hardwood timber must be exported from Saigon where regular shipping schedules are available.

(2) Saw milling costs (per m^3)

Log cost	US$ 89.67
(It normally takes 1⅓m^3 of logs to produce 1m^3 of export grade lumber)	
Labor, power, fuel, chemicals, etc.	US$ 13.43
Export packaging and marking	US$ 2.24
Forwarding/stevedoring	US$ 4.47
Total Cost for Saw Milling	US$109.81

(3) Export expenses including bank charges and interest	US$ 8.35
(4) Other costs	
Estimated to be 7½ percent of fob value	US$ 8.35
Total cost of lumber per m^3 for export, fob ship 4/	US$126.51

Sales value: 5/

Common and better lumber per m^3	US$132.71
Less freight/insurance	- 38.79
fob price Saigon	US$ 93.92
Plus 15% export subsidy	14.08
fob price plus subsidy	US$108.00

Profitability:

Cost of producing lumber - fob ship	US$126.51
fob price plus subsidy	- 108.00
Net loss	US$ 18.51

4/ Some producers manage to escape some of the log and transport costs shown which account in part for their continuing operations.

5/ Quotes for Vietnamese sawn timber in October 1974 CIF at U.S. West Coast ports.

a. Fisheries

i) Restrictions: The efficiency and effectiveness of fishing operations are seriously hampered by official restrictions against the use of direct ship-to-shore radio communications and the high cost of communications through the official marine radio-telephone system. With poor communications, management ashore is unable to properly direct fishery boat activity, maintain adequate control of operations and resolve problems.

ii) Transportation Delays: Frequent delays of fishing vessels and transport trucks for "security" checks and the fee collection imposed for passage, increase costs of production and cause a significant deterioration of the products.

b. Forestry

Although the forestry law provides for long-term timber leases, there appears to be an administrative policy against such leases, which discourages large, foreign investment in timber and logging projects.

3. Institutional

a. Availability of Credit: Institutional credit is not readily accessible to most farmers and farmers must depend on relatives, merchants and money lenders for credit or do without it. Furthermore, the amount of credit supplied by the ADBV and Private Rural Banks often is not adequate to meet the full costs of recommended cash inputs. Therefore, farmers must supplement these loans with additional credit from other sources or be satisfied with something less than full potential yields.

It is assumed the credit needs in agriculture are equal to 40 percent of the value of the gross agricultural product. The projected gross agricultural product values for 1974 and 1975 are VN$1,100 billion and VN$1,210 billion, respectively. Using the 40 percent need figure, the projected credit need in agriculture for 1974 is VN$440 billion. of which the ADBV and Private Rural Bank systems are expected to supply only 17 percent. The projected credit need in agriculture for 1975 using the same basis of calculation is expected to be VN$484 billion. The ADBV and Private Rural Bank system with the proposed capital assistance grant will be able to supply about 26 percent.

Cost and income data obtained from farmers growing rice in Vietnam show there is a persuasive correlation between adoption of recommended growing practices and the credit available to farmers. Without the credit support provided by the ADBV, it is very doubtful that the accelerated rice production program initiated in 1968 would have reached the production target goals attained. The combination of credit, farmer supervision and the new high yielding varieties permitted Vietnam to increase rice production from about 4.4 million MTs of paddy in 1969 to 6.6 in 1974.

A lack of adequate credit, particularly short and medium-term, inhibits production of forestry products. High cost of interest and short repayment terms are a disincentive to further investment in timber cutting and handling equipment.

b. Interest Cost: The spread in interest rates between medium and long-term loans, 14 percent, and production loans, 24 percent, needs to be reviewed. Present government policy of discouraging any increase in interest rates has had the effect of discouraging other institutional lenders, and the number of medium and long-term loans has been kept to a minimum because the cost of them was much greater than the return.

Funds obtained by the ADBV and Private Rural Banks from time deposits cannot be used profitably by them in their loan programs. The present interest rate on one-year time deposits is 26 percent while the interest charged by the ADBV and Private Rural Banks for production loans is 24 percent and 31 percent, respectively. The ADBV only charges 14 percent interest on medium-term loans. It follows that loans using time deposits as a source of funds must be subsidized and the Private Rural Banks have been discouraging time deposits which in a healthy economy should be a major source of loan capital. Commercial banks including the Private Rural Banks presently will not accept time deposits for more than six months. Present six months time deposits earn only 23 percent.

c. Inadequate Grain Storage and Handling: Existing rice handling, conditioning, storage and milling facilities are inefficient and an estimated 15 percent of the rice harvested is lost before it reaches the consumer. As Vietnam approaches a surplus situation, the problem is becoming more acute because more high yielding varieties are being grown and harvested ruing the rainy season. Rice mill yields and the quality of rice produced are significantly below levels elsewhere in the world. Either more effective use of existing mills will be required or modern milling facilities installed to meet international trade standards for rice exports.

4. Other

a. Continuing Hostilities: The war and associated insecurity is a major deterrent to expanded agricultural, forestry and fisheries development:

(1) Only a fraction of the forested area and potential new farm and grazing land can be brought into production because of fear and interference. For example, logging has been banned for over two years in Tay Ninh and Binh Long, two important log producing provinces. Likewise, many waters rich in fishery resources cannot be harvested due to military limitations.

(2) Over 1 million men, representing the best of the labor force, are in uniform.

(3) Investment by foreign entrepreneurs, who have shown great interest in developing export industries based on the utilization of bananas, range cattle, feed grains, oil seeds, timber and other agricultural products, has been held up.

(4) Water control structures, power lines, railroads, roads, bridges and other infrastructures have been destroyed.

b. <u>Shortage of Trained Personnel</u>: The currently estimated need for professionally trained personnel in agriculture, forestry and fisheries in the public and private sectors is 6,937. The estimated total number of college graduates with this type of training in 1974 is 1,292. Thus, it is clear that additional professional manpower development is urgently needed.