Thus, assuming no lag in price effects and summing all these up, a 40% increase in the tax on petroleum products provokes a rise in the level of consumer prices equal to .0322 or 3.22% of the level before the tax increase and at 1961 prices. In current prices, which run to roughly 50% since 1961, this 3.22% could generate as much as 5% increase in current consumers price index. In a sense, one could interpret this increase as the price multiplier effect of an increase in indirect taxes on petroleum product. It is equivalent to a summation of an expansion series of effects communicated throughout the structure of household expenditures on goods and services. In real terms, this 3.22% in consumer prices translates in a reduction in consumer real income and sense of material well-being by the same proportion.

The magnitude of the rise in the price level in this instance reflects 1) unit cost of production in 1961 prices, 2) the degree of interdependence among industries in 1961, and 3) given elasticity about industry supply. Clearly, depending on the values assumed by any of these three parameters in given time, the percentage rise in the general level of consumer prices may be greater or smaller.

One further point remains to be made. The above analysis is limited to the price effect of a 40% tax increase on petro-

leum products insofar as household expenditures are concerned.
Obviously, to capture the totality of effect communicated
throughout the entire economic structure of the Philippine eco-
nomy, one must estimate the price effects individually absorbed
by the other components of final demand, viz., government pur-
chases of goods and services, new capital expenditures and ex-
ports. Estimation of the latter effects is simply a matter of
extending the sort of analysis shown for household expenditures.
The reader may pursue these other analysis himself on the basis
of information supplied in the Statistical Appendices of this
report.

As a matter of balance, the above analysis of the price ef-
fects due to the proposed new gasoline taxes has to be qualified
in several directions. First, while it is true that an increase
in excise of sales taxes tends to raise unit costs of production
and unit prices, it is also true that the expenditure of such
tax revenue in additional and better infrastructure fructifies in
social benefits to the public, in terms, say, of reduced deprecia-
tion charges and eventually reduced distribution costs. Thus,
the net effect on consumer prices of the proposed gasoline tax is
the difference between the social returns out of more and better
roads and the increase in costs and prices due to the tax. All
these obviously take the nature of long-run effects. In the short-

run, however, when roads are being built and gestation periods
are prolonged, the proximate effect of the proposed additional
gasoline tax is to trigger off some price effects whose severity
varies in direct proportion to the size of the tax increase and
the duration of the gestation period.

Secondly, once all the tax proceeds have been successfully
utilized in the production of a more and better road system, it
pays to produce vendible surpluses which can be profitably dis-
tributed into a much wider market, possibly eliminating many
middlemen along the way, and stabilizing supply as well as price
for the consumer. In effect, then, the increase in gasoline
taxes will be one of the prices Philippine society must pay to
open up frontiers of production and hasten the process of econo-
mic development.

Our primary aim in this exercise has been to indicate the
possibilities and direction of analysis implicit in the various
manipulations of the inverse matrix of an input-output table.

V. Some Technical Notes

A. The NEC Estimates of GNP and NI Are Very Much Understated

(a) The NEC estimated the 1961 GNP previously at ₱13,427 million and the resulting national income at ₱11,746 million. The corresponding figures derived from their I-O are ₱12,504 million and ₱10,958 million. These are ₱923 million and ₱788 million less than their previous estimates.

On the other hand, the UP-BCS I-O gives GNP at ₱16,846 million and ₱14,589 million which are respectively 25.5% and 24.2% more than those obtained by the NEC from their old series and even more than their I-O results.

The following table shows other differences:

	UP-BCS I - O (₱1000)	NEC National Income Account (₱1000)	N E C I - O (₱1000)
Compensation of employees	₱ 3,675	₱ 4,951	₱ 5,339
Profits, rents, interest[1]	10,914	6,795	5,619
NI (at factor cost)	₱14,589[2]	₱11,746	₱10,958
Depreciation allowances	1,308	696	623
Indirect taxes less subsidies	948	985	923
GNP	₱16,846	₱13,427	₱12,504

[1] Including income from self-employed.

[2] Does not add to ₱14,590 due to rounding.

In (c) following, it is shown that the NEC estimates of out-
put were based on purchaser's price so that a good portion of
output accruing to the trade sector has been included in the non-
trade sector. It is reasonable therefore to believe that "profits,
including income of self-employed"
rents, and interest/ in the non-trade sector is underestimated by
an amount equivalent to the product of output accruing to the
trade sector and the difference in the trade and the non-trade
profits coefficients. It should be noted that the "wholesale and
retail" coefficient is among the highest (.82940) being second
only to "banking, insurance real estate" (.94270). With respect
to this last sector, the UP-BCS I-O gives a value-added amounting to
P3,322 million, of which P3,230 million is attributed to "profits,
etc." and only P81 million went to compensation of employees. The
NEC I-O showed a value-added of only P984 million, of which P361
million went to wages and salaries, P523 million went to "other
value-added."

(b) Similar degrees of discrepancy on the expenditure side
are apparent: 1961

	UP-BCS I-O (P1000)	NEC National Income Account (P1000)	N E C I-O (P1000)
Private Consumption Expenditure	P 12,048	P 10,814	P 11,129
Government Current Expenditure	1,529	1,223	1,088
Gross Domestic Investment	3,594	1,792	2,623
Exports of goods and services	1,332	-	1,176
	P 18,503	P 13,829	P 16,016
Less: Imports of goods and services	1,657	402[1]	3,290
	P 16,846	P 13,427	P 12,726

[1] This represents "net import and investment income."

The UP-BCS inter-industry study shows total current expenditure
in the private sector of ₱12,048 million which is ₱1,234 million
larger than the NEC figure of ₱10,814 million in its National In-
come Accounts. This figure was obtained essentially from the 1961
BCS Households Survey of Income and Expenditure and supplemented by
other sources. The difference in government current expenditure is
less pronounced whereas the UP-BCS I-O estimate for gross domestic
investment of ₱3,594 million (consisting of ₱1,831 million in fixed
assets and ₱1,763 million in net inventory changes) is more than
double the NEC national account figures for gross domestic invest-
ment of ₱1,792 million and ₱971 million more than the NEC I-O esti-
mate of ₱2,623 million. It may be observed that during this period
a number of firms had been building inventories in anticipation of
full decontrol.

Exports of goods and services in 1961 amounted to only
₱1,332 million based on the UP-BCS I-O data. The NEC national ac-
counts and I-O, however, reported ₱2,347 million and ₱1,176 mil-
lion, respectively. The UP-BCS estimated a total import of ₱1,657
million against the NEC national accounts and I-O of ₱2,596 and
₱3,290 million, respectively. This difference in the foreign
trade data given in the two input-output tables is indeed size-
able. While the UP-BCS (which compiles foreign trade data from
basic documents and Customs' manifests) gives a figure on exports

of ₱1,332 million which cover some 80.4% of its import value of ₱1,657 million, the NEC data on exports was ₱1,176 million, representing only 35.7% of its import data of ₱3,290 million.

(c) 'The (gross) value-added distribution by industry. It shows an approximate per cent distribution of national product by industrial origin. However, a more comparable distribution to "National Income by Industrial Origin" of the NEC is indicated below. The NEC I-O figures are also given in order to determine the level of discrepancies among the various estimates.

	UP-BCS I - O (₱1000)	Per Cent	NEC National Account (₱1000)	Per Cent	N E C I - O (₱1000)	Per Cent
Agriculture, Forestry and Fishing	₱ 1,943	.133	₱ 3,858	.328	₱3,683	.336
Mining	80	.006	209	.018	125	.011
Manufacturing	3,984	.273	2,090	.178	2,288	.209
Construction	102	.007	428	.036	365	.033
Trade, Banking, Insurance and Real Estate	5,337	.366	1,410	.120	2,203	.201
Transportation and Communication	1,032	.071	416	.035	328	.030
Other Services	2,112	.144	3,335	.285	1,966	.180
NI (at factor cost)	₱14,590	1.000	₱11,746	1.000	₱10,958	1.000

The UP-BCS inter-industry data shows the relatively small contribution to national income of the agricultural sector. The NEC figures run to roughly a third whereas the former gives only about one-seventh of NI. One major reason for this is that the NEC data are on purchaser's

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1/ Refer to a later section on the deficiencies that arise by using the purchaser's price system in constructing input-output tables.

price whereas that of the BCS I-0 estimates are on producer's price.
Since

$$\text{Purchaser's Price} = \text{Producer's Price} + \text{Trade Margin} + \text{Transport Services} + \text{Indirect Taxes},$$

the industry value-added in the NEC data is expected to be larger in
general by amounts equal to the "trade margin" and "transport ser-
vices" included in a particular industry while the UP-BCS I-0 data
will be larger by these quantities in the "trade, banking, insurance,
and real estate" and "transportation and communication" sectors, res-
pectively.

The UP-BCS inter-industry study showed that these "trade mar-
gins" ranged from 4% of output in palay and corn industries to as
much as 45% in the vegetable and related industries and more than
53% in forestry. Some initial calculations, using the NEC I-0
data, revealed that as much as ₱1,000 million of the value-added
in the "agriculture, forestry and fishing" sector should have been
included in the "trade, banking, insurance and real estate" sector.
With this adjustment alone, the agriculture, forestry and fishing"
sector would drop from 33% to 24%, whereas the "trade, banking,
insurance and real estate" sector would rise to more than 29%. If
further adjustments are made for "transport services", the results
could be well below 24% for the "agriculture, forestry and fishing"
sector and more than 29% for the "trade, banking, insurance and
real estate" sector.

The effect of classfying an economic activity in a sector where it does not properly belong is reflected in the contribution to national income of this particular activity. If, for instance, a ₱100 output is included in agriculture its contribution to national income is only about ₱49 where as if included in the "wholesale and retail"sector, the same output contributes about ₱96 to national income.

To a certain extent, the class fication of economic activities has accounted for some of these discrepancies observed in the industrial origin of NI. The NEC had included, for instance, copra production in the agriculture sector which was classified in "manufacturing" in the BCS scheme of classification. A sizeable amount of unlicensed and other small scale manufacturing activities may not have been included in the former figure as well.

Besides the above considerations, a basic explanation for the low proportion of value-added contributed by agriculture to the national income is the type of agriculture which engaged the majority of Filipino farmers -- subsistence agriculture. The subsistence nature of Philippine agriculture is an amalgam of antiquated production techniques, the seasonality and prolonged gestation periods for farm output and intense population pressure among the farm communities.

The sectors for "mining" and "construction" in the UP-BCS I-0, being in producer's price, were expected to be larger than the

put-output acoounts for the periods 1955 and 1960[1]. In both periods, the national income accounts registered considerably lower values of gross national product than the input-output accounts. As a matter of fact, for 1955 the national income accounts underestimated the GNP by as much as 18.4% of the level indicated by the input-output accounts. Even after the appropriate adjustments have been made, the GNP figure derived from the national income accounts remained 10% lower than that of the input-output accounts for the same period 1955. Comparable magnitudes of underestimation also characterized the 1960 accounts.

C. The NEC Constructed Input-Output Table and GNP Accounts have Remarkably the Same Distribution of the Origin of National Income.

Presumably to test the accuracy of the national income accounts which have been compiled by the NEC since 1957, an input-output table was constructed by the same office at about the same time that the UP-BCS was c nstructing an interindustry table. Both are for the same year 1961.

The results of the NEC input-output are markedly in agreement with the GNP accounts which are constructed 5 to 6 years

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[1] Economic Research Institute, Economic Planning Agency of the Japanese Government, The Measures Concerning Improvement of National Economic Accounting, Economic Bulletin No. 14, Tokyo, January 1966, esp. 33-34.

earlier. The industry distributions are markedly the same, ex-
cept for "other services" which went down from 28% to 18% after
transferring income originating from "owner-occupied dwellings"
to the "real estate, banking and insurance" sector resulting in
the rise of the latter to more than 20% from the previous 12%
level. "Agriculture, Forestry, and Fishing" sector contributed
34% to national income, 1% more than the previous estimate of
33%. Manufacturing increased to 21% from the previous estimate
pf 18% contribution to national income. But national income
further decreased by ₱923 million or 7% less than the previous
figures.

Considering that the recent effort by the NEC to construct
an I-O table apparently required tapping of "all possible sources
of additional data, both government and private" and considering
further that the input-output table was claimed to have come from
an original 585 sectors, later consolidated successively to 210,
to 115 and finally to 50 sectors, the estimates of national in-
come for 1961 using the old approach appeared to be solidly esta-
blished. These claims, in effect, would also tend to prove the
validity of the procedures used and the assumptions made in 1962
towards reconstructing the national income accounts for calendar
year 1961.

But let us recall briefly the methodologies employed in es-
timating the industrial origin of national income.

1. Value Added Approach in Agriculture

Let us, in particular, look at the value added approach in estimating income originating in Agriculture. We are quoting the report (pp. 12-13) of a World Bank Resident Mission, May 1964, entitled "Review of Economic Statistics in the Philippines".

"The value of agricultural output is estimated each year from the results of the annual Crop and Livestock Surveys of the Bureau of Agricultural Economics and from data obtained from other bureaus of the Department of Agriculture and Natural Resources. The reliability of the Crop and Livestock Surveys is discussed elsewhere. However, seeing that the Surveys cover agricultural production by farm-households only, global adjustments are made to take account of other agricultural production (see "Crop and Livestock Surveys"). The adjustments are made on the basis of fixed coefficients derived from the 1948 Census of Agriculture.

"In practice, only crop and livestock inventory are valued at prices actually received by farmers. Fishery, forestry, livestock and poultry products (except pork, carabao, and horse meat) are valued at wholesale prices, while the latter are valued at consumer prices. No deduction is made for wholesale and retail trading margins, with the result that these margins are included, implicitly, in farm income.

"No direct estimates of non-factor production costs have been compiled since the 1948 estimates prepared by W.C. Abraham. The estimate of gross value added by the branch is thus obtained by deducting these same percentage costs from the estimated value of output of each major crop and livestock item. These cost percentages do not include allowances for depreciation of farm buildings and equipment, and a further global deduction on this account is made at the fixed rate of 2.66 per cent of gross value added in the sector. This percentage is presumably the same as that employed for 1948.

"Both for long-run and short-run analysis, the use of fixed 1948 cost ratios for deriving value added in

agriculture almost certainly introduces into the estimates errors of a most serious nature - and these in addition to those outlined previously. In all countries, agricultural techniques and technical input patterns are subject to change over the years. In the Philippines in particular, the change over the past 15 years has presumably been considerable, with a growing trend towards increased purchases of inputs such as fertilizers, insecticides, etc. from other sectors. This presumption would appear to be borne out by the tentatively revised cost ratios for 1959 prepared by the Economic Research Department of the Central Bank. While the calculations are not final, a clear upward trend is discernible in the cost ratios for most crop and livestock items, as compared with the 1948 ratios now employed.

"Other things remaining equal, therefore, the continued application of the 1948 cost ratios means that the estimates of value added in the branch in recent years are overstated.

"For short-run analysis, the use of fixed cost ratios may lead to even more serious distortion - and this even when technical input patterns are not undergoing change. This may come about as the result of irregular short-run fluctuations in average physical yields, due to climatic or other factors such as drought, excessive rain or cold, pests, etc. In such years the same value of inputs will normally constitute a higher percentage of the reduced value of agricultural output than in normal years. As a result, the use of the lower cost ratios applicable to normal years will lead to overstatement of agricultural income (value added) in the current year. The opposite will be the case, of course, for years with exceptionally bounteous yields. It is apparent, therefore, that the present method must tend towards ironing-out and minimizing the year to year fluctuations actually occurring in income originating in the branch. However, it is precisely these fluctuations that are of interest to policy makers and analysts.

"Another factor contributing to both short and long-runmodifications in cost ratios is the changes occurring in the "terms of trade" of the agricultural sector vis-a-vis other domestic and foreign sectors. The present cost ratios were calculated on the basis of the relative

output and inputprices ruling in 1948. Any subsequent
changes in these relative prices would consequently imply
changed cost ratios also. The assumption of fixed ratios
by-passes this problem, and undoubtedly constitutes an ·
additional source of error in the estimates."

The exhaustive remarks are very clear and hardly any ela-

boration seems necessary. The NEC input-output table which

purports to be based on more sufficient and new sources of

data shows value-added of ₱3,683 million in agriculture. The

much earlier estimate by the NEC 6 years ago, admittedly on the

basis of inadequate information, recorded value-added in agri-

culture at ₱3,858 million which is only about 4.7% different

from the new I-0 estimate, both estimates being on purchaser's

price. Such a coincidence of results raises the possibility

that the I-0 tables in the estimate of national income also ap-

plied the same arbitrariness, assumptions and sources of data as

indicated above by the World Bank Mission. As a matter of fact,

because available data are not entirely the same and are pro-

bably different for the I-0 and NI approaches, there remains

the possibility that the NEC statisticians were "influenced"

congenitally by the figures they have been building into

their GNP accounts since 1957.

2. Value Added Approach in Manufacturing

Value added in the manufacturing sector was calculated from the estimated value of gross output by industry (2-digit ISIC) by applying fixed cost ratios dating back in most cases to the 1946-1951 estimates prepared by W.C. Abraham. Value of gross output of manufacturing industries for 1961 was estimated by extrapolating from the 1960 benchmark estimates of gross output reported by the Central Bank to have come from 800 cooperating firms (2000 establishments) which had been arbitrarily selected from about 8000 establishments employing 5 workers or more. Hence, practically no account had been made of establishments with employment size 1 to 4 and other unorganized business establishments. Furthermore, the 1960 benchmark estimates were later found to be grossly understated.

The NEC National Account estimate of 1961 manufacturing value added was ₱2,090 million, whereas the input-output account recently constructed by the same office shows ₱2,288 million. If this is so, the NEC input-output which was estimated reportedly from new sources of data appeared to have established, in effect, the validity of the estimate of income originating in Manufacturing calculated 6 years ago from insufficient data. The probability of having such coincidence is almost nil, which indicates that

the probability of such <u>coincidence to be due to the "influence"</u>

<u>of previous national income figures on their input-output con-</u>

<u>struction</u> approaches 1; that is, this event approaches certainty.

The same line of comparison with the rest of the sectors

will further draw similar observations.

C. <u>The Disadvantages in Using the Purchaser's Price System of</u>

<u>Valuation Rather than the Producer's Price System in Con-</u>

<u>structing Input-Output Tables</u>

While theoretically GNP obtained from interindustry tables

will be the same whether the purchaser's or producer's price system

is used in the valuation of taansactions, in practice, however, es-

pecially with the method used by the NEC in the revised estimate of

GNP for 1961, the procedures followed will not yield the same results.

In other words, if the purchaser's price system was properly used, it

would have yielded the same result as using the producer's price sys-

tem.

However, the NEC uses fixed ratios of value added which are

applied to total output of the industry. Since the valuation of out-

put in the industry also includes the output component due to trade,

transportation and indirect taxes, the method, in effect, also applies

the same fixed ratio of value added of Agriculture, say, to the market-

ing components of that sector which have different ratios of value added to total output.

An input-output table valued at producer's price will show separately inputs from marketing sectors as trade, transport services and government to the purchasing industry for every transaction; thus, the value corresponds more closely to the flow in physical units. Under the purchaser's price system, however, the marketing costs are recorded twice[2] -- they are included in the value of output of the producing industry and again directly as inputs to the same producing industry. The inverse of the input coefficients will likely yield incongruous results.

Coefficients estimated using purchaser's price are likely to be unstable. This will cause variations in the output row total of the industry if there are changes in the pattern of marketing costs even if there are no actual changes in the industry's output. In other words, the recorded output of an industry is sensitive to changes in the pattern of marketing distribution. On the other hand, since the input structure of an industry are generally more stable than its output structure and marketing costs will vary with changes in the input structure, the producer's price system of valuation will

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[2] "Problems of Input-Output Tables and Analysis," United Nations, New York, 1966, 37-39.

yield more stable coefficients in the base year than those using the purchaser's price system.

As a matter of information, a tabulation by the United Nations in 1966[3/] of country experiences in input-output work shows that 28 countries out of 29 have used the producer's price as a valuation system, i.e., Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Finland, France, Easter Germany, Federal Republic of Germany, Hungary, India, Ireland, Israel, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Poland, Spain, Sweden, United Arab Republic, United Kingdom, United States, and Yugoslavia. In addition to tables in producer's price, the following countries have also set up tables in purchaser's price: Australia, Czechoslavakia, Eastern Germany, Japan, Norway, and Sweden. Only the USSR used solely the purchaser's price to record transactions.

[3/] ibid., 145-146.

D. Countries With Low Contribution of Agriculture to National
   Income and High Contribution of Capital Formation.

It has been mentioned somewhere in this paper that low pro-
ductivity in the agricultural sector has in effect generated only
13.3% contribution of value added to national income in 1961.

Certain quarters claimed that this type of economic distri-
bution is common to developed countries only. This hypothesis
maybe true, but the converse need not necessarily be true. In
other words, an economic distribution of low agricultural con-
tribution to national income in relation to other sectors does
not necessarily indicate that it belongs to a "developed" economy.

.The following table, taken from the United Nations 1966 Sta-
tistical Yearbook, shows several countries, which are believed to
be underdeveloped, with rather low agricultural contribution to
national income.

Argentina (1965	16%	Lebanon (1958	17
Bolivia (1965)	23	Malta (1965)	8
Chile (1960)	12	Mexico (1965)	17
(1965)	10	Peru (1964)	20
Cyprus (1960)	17	Puerto Rico (1965)	7
(1965)	22	Southern Rhodesia (1965).	19
Dominican Rep. (1964) ...	24	Trinidad (1962)	10
Guyana (1965)	25	Uruguay (1963)	15
Jamaica (1963)	13	Zambia (1965)	10

Similarly, the following table taken from the same source, shows several underdeveloped countries which have rather high capital formation in relation to GNP.

Algeria (1958) 24%	Malta (1958) 23%
Argentina (1960) 22%	Mauritius (1960) 28%
Barbados (1958) 35%	Thailand (1965) 22%
Congo (1958) 22%	Tunisia (1965) 27%
Dominican Rep. (1958) ... 20%	Zambia (1958) 33%
Greece (1960) 25%	
Jamaica (1958) 23%	

E. **The Final NEC I-O has a 50 x 50 Transaction Table With More than 60% of the Cells Blank.**

Out of the possible 2,500 cells, 1515 are blank. The usefulness of such a table is very limited insofar as relationship or establishing links among industries is concerned.

The number of zero elements in an input-output table measures crudely the statistical quality of the table.[4] In comparing the I-O tables of U.S. (1947), Japan (1957), Italy (1950), and Norway (1950), Chenery and Clark constructed for each economy a 29 x 29 transaction matrix which was consolidated from larger tables. The

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[4] Hollis B. Chenery and Paul G. Clark, *Interindustry Economics*, John Wiley & Sons, Inc., 1959, 205 n.

following are the numbers of zero elements: U.S. (242), Japan (273), Italy (359), Norway (392) out of a total of 784 coefficients (omitting sector 29).

The UP-BCS Interindustry table has 268 blank cells or less than 32% of 841 cells (using 29 x 29) and only 258 blank cells if sector 29 is omitted.

F. The Introduction of an "Unallocated" Sector and "Statistical Discrepancy" in the NEC Input-Output Table is an Artificial Device.

The NEC introduces an "unallocated" sector, which purports to show that there are productive industries which could not be classified in the economy which are also purchasing outputs of other industries while at the same time selling their outputs to other industries as inputs. Such a device is blatantly odd, since this sector has "zero½ value added and hence, has no contribution to GNP. Evidently, the purpose is really for adjusting.

If the "unallocated" sector was introduced simply as a convenient mechanism for adjusting sectoral outputs and inputs, then what is the point in introducing further the so-called "statistical discrepancy" on the last row? Since this discrepancy appears to be less than 5%, does this mean now that the estimates have been computed with splendid accuracy?

By way of commenting on the UP-BCS input-output table,
the NEC made the following observation:

> "The input-output tables showed no unallocated
> sectors suggesting 100% allocation of all inputs
> and outputs.
>
> "The UP-BCS researchers attempted to supply fi-
> gures for every transaction (e.g. all sales and pur-
> chases) thus making it appear that they have achieved
> a perfect accounting of all inputs and outputs. Even
> the most statistically sophisticated countries due to
> lack of sufficient data and detailed information resort
> to the use of unallocated sectors in their input-output
> computations."

Our rejoinder to this observation is this: Inspite of the
introduction of the "unallocated" sector, the NEC I-O table
appears also to "have achieved a perfect accounting of all in-
puts and outputs" in the following sectors since they have 100%
allocation: palay (1); coconut, including copra (7); other
crops (11); transport equipment (37); wholesale and retail (41).

If we are to follow the argument of the NEC that this 100%
allocation situation is not possible, how were they able to take
account of all outputs and inputs of palay producers, etc. in
these sectors?

Furthermore, how were they able to have a 100% allocation
of output of "tabaoco manufactures (21)", "machinery, except

electrical machinery (35)", "electrical machinery, apparatus, appliances and supplies (37)" since the column cells of "unallocated sector (50) are blank for these sectors?

And finally, how were they able to have a 100% allocation of all inputs of the following since the row cells of the "unallocated (50)" sector have no entries: corn (2), fruits and nuts (3), root crops (4), vegetables (5), coffee and cacao (6), sugar cane (8) fiber crops (9), tobacco (10), livestock and poultry (12), other agricultural activities (13), furniture and fixtures (25), basic metal products (33), metal products, except machinery and transport equipment (34), electricity, gas and steam, water and sanitary services (40), transportation (45), communication (47), and government services (49).

The presence of the "unallocated" sector and the introduction of statistical discrepancy" only confirms our early observation that the previous estimates of national income by the same office, which were based on very insufficient data and questionable methodologies, have greatly "influenced" the final estimates in the input-output table.