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THE USE OF NATIONAL INCOME ACCOUNTS IN PLANNING IN PAKISTAN

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NATIONAL Economic Planning, by its very definition, implies projections of the behaviour of certain macro-economic magnitudes. These magnitudes generally form a part of the overall national income and expenditure accounts. Planning activity, therefore, presupposes the existence of some sort of statistical series about these magnitudes, even if a consistent and comprehensive set of national accounts with adequate sectoral disaggregation is not available. The technique of planning and the precision and detail with which its objectives are described statistically would, of course, depend very much on the nature of statistical information available regarding the key variables in the economy.

The long-term objectives of planning effort are mainly qualitative, such as an improvement in the standard of living of the people, a diversification and broadening of the economic base of the country and fuller and better utilization of the country's productive resources. These abstract ideals need to be expressed in terms of concrete targets – as rates of change in certain key magnitudes. In order simultaneously to decide upon the best strategy for achieving the targets so defined, i.e. to make decisions regarding the transfer of resources for developing sectors, including the size of this transfer, its allocation to different areas and proper balance of various flows, it is necessary to refer to the national accounts. In a dynamic analysis, this would also involve allocation of new resources generated by the development effort between various uses within the framework of defined objectives. Finally, use has to be made of national income and expenditure statistics in evaluating the performance of the economy in the Plan periods. This provides a yardstick with which to measure progress, particularly in the short run.

The precise form in which national income statistics are presented – the details regarding its origin and distribution and

the degree of disaggregation both in terms of geographical units and economic sections, depends upon the needs of the planners. It has a vital relationship with the terms in which planning objectives are defined. In Pakistan, for instance, the growing emphasis on reduction and removal of regional disparities in income levels has brought to the forefront the question of reorganization of national income data in such a manner as to provide more information on the relative rates of growth in East and West Pakistan. Similary, the shift in emphasis in the strategy of planning involving a greater emphasis on the contribution of the private sector in the Second Five-Year Plan has underscored the need to have more detailed information regarding capital formation in the private sector.

As is well illustrated by planning experience in Pakistan, the requirements for statistical data are determined by the use the planners seek to make of information that is available. This process highlights the inadequacies and shortcomings in the statistical framework. It is then the task of statisticians to improve and broaden the base on the lines suggested by planners. This is a case of mutually interacting growth. The only way better statistics can be developed is to make use of whatever data is available, and to go on refining this in the process of use, highlighting the gaps and limitations.

National Income Statistics in Pakistan

While good statistical series were developed on various aspects of economic life in Indo-Pak sub-continent, a consolidated system of national accounts was never attempted until the first attempt by V. K. R. V. Rao at devising a method for measuring national income of British India was published. This became the base for much of unofficial planning in pre-Independence days. After 1947, the problem of compiling separate statistical series for Pakistan, which had been readily available before Independence, assumed primary importance. National income figures had to be roughly estimated in response to the requirements of the Six-Year National Plan which was drafted in 1950 as part of the Colombo Plan. The data were later refined and income estimates were calculated for all the years since 1948-9. The limitations of this series on national income and its sectoral origin is a subject which has been dealt with at length in other papers presented before this Conference. We are

concerned here only with the use actually made of these data in the planning process in Pakistan.

First Five-Year Plan

The preparations for Pakistan's First Five-Year Plan commenced in 1953 with the setting up of the Planning Board in that year. The current series of national income statistics was prepared after that and was published for the first time in the Central Statistical Office Bulletin of February 1955. This table was reproduced in the final draft of the Plan in a separate section on National Income. The table was used to draw the conclusion that while total national income showed a moderate upward trend since 1949, *per capita* income 'appears to have fluctuated around a constant level'. Further, it was noted that while industrial production had shown improvement, agriculture remained stagnant. Annual fluctuations in both *per capita* and total national income were attributed to:

> (*a*) vicissitudes of weather and pests which had a major impact on agricultural output, and
> (*b*) fluctuations in the terms of trade.

In its original draft the First Five-Year Plan aimed at an increase of 20 per cent in national income. This target was, however, brought down to 15 per cent in the final plan, as estimates regarding availability of resources were revised downward in the light of certain unfavourable developments in the economy.

The problem of resources was approached in the First Plan from the standpoint of estimating the maximum amount of resources which the Community will be willing to devote to development either through public or private saving'. Public savings were estimated as the amount by which the public revenues exceeded public expenditures for non-development purposes, including the effect of some recommended additions to Government revenues from taxes and other sources.

Though private saving was defined as the amount by which private incomes (after taxes) exceeded expenditures for consumption, an indirect method had to be used for estimating saving because of the absence of any direct information on the magnitudes of consumption, saving or investment in the economy. The formula for calculating savings in the base period

of the plan was based on the identity of *ex post* saving and investment. The formula was as follows:

Private saving equals (1) domestically financed private investment

plus (2) public expenditures financed by increase in domestic liabilities or liquidation of assets

minus (3) decrease in gold and other foreign assets of the country.

The estimates of domestic private investment were prepared by the Planning Board on certain assumptions regarding the use of key inputs in investment.

Projections of savings for the Plan period were made from these estimates by taking into account the effect of the planned rise in income during the Plan period. The marginal saving ratio was assumed at 10 per cent.

Second Five-Year Plan

In the preparation of the Second Five-Year Plan, even though the supply of data on national income was not better than in the First Plan, considerable experience had been gained. Certain refinements were made in the data to enable the use of the national accounts as an integral part of planning, as well as a concrete form for expressing the goals.

The First Five-Year Plan had recognized the limitations of national income data, but had left it at that. It was pointed out that

'In interpreting these statistics it should be kept clearly in mind that their accuracy is limited. In certain fields the estimates are based upon highly incomplete information; in others, such as the key agricultural sector, statistics are available for major crops, but due to inadequate reporting they do not rest upon a firm base. For these reasons the table (of national income) can only be used to show rough orders of magnitude.'

Considerable difficulty was experienced in the final evaluation of the performance of the First Plan in terms of national income series. It was felt that it tended to underestimate the growth rate in the economy. Certain adjustments, therefore, had to be made.

In the first place, the figures of minor agricultural crops, live-stock and fisheries, which were shown as constant in the C.S.O. national income accounts, were adjusted on the basis of the data specially collected for these sectors. Secondly, national income estimates were converted into gross national product by the exclusion of the terms of trade and by adding back depreciation to estimates of gross value added. Finally G.N.P. figures were adjusted to current prices on the basis of an index prepared by the Institute of Development Economics, so that G.N.P. estimates were available in current prices as well as constant prices.

In the Second Plan, a beginning was made on the basis of these revised estimates to compile an overall table of sources and uses of national resources, though the degree of disaggregation remained seriously limited. This process had the advantage of presenting a clear picture of the flow of resources in the economy, setting the planned targets of capital formation in that perspective. The estimates of resources and uses were prepared not only for the First and Second Plan periods on a comparable basis, but were also broken down into annual estimates.

As may be seen from the table, this is a rather summary construction and presents only a beginning. Gross national product figures for the first Five-Year Plan period are projected for the period 1960–5 on the basis of the Plan assumption of a 20 per cent increase in national income. To this are added estimates of inflow of resources from abroad under various aid and loan arrangements. Changes in foreign exchange reserves are added to the resource picture with a change in sign. These total resources are allocated broadly under consumption, and each of these uses is subdivided into private and public sectors.

The main limitation of this simple table is that none of the magnitudes on the uses side is directly obtained from national income accounts. These are indirect estimates based on certain assumptions. While public sector investment was easy to determine on the basis of the definition provided by the Second Plan, public sector consumption presented difficulties in the absence of an economic classification of the Budget. Private sector investment was calculated for the First Plan period on the basis of actual consumption of certain key investment goods such as machinery, cement and iron and steel. Studies were made in the Planning Commission to determine the proportion of these key inputs to total investment in various areas of economic activity.

For the Second Plan to break-down was attempted on an annual basis between public and private investment, though for the Plan period as a whole, some estimates of private investment were made.

Finally, private consumption was derived as a residual item; it thus included even private investment outside the Plan. It also included potential investment which could not materialize over the First Plan period for lack of key inputs as a result of the foreign exchange bottleneck.

Financial Resources and Flow of Funds

The Second Five-Year Plan also made a beginning in the construction of flow of funds accounts to bring about a consistent picture regarding the flow of funds, financing of capital formation and savings within the plan framework. Though planning generally deals with the flow of real resources, the financial aspects of these flows have important implications, especially in cases where real flows have been estimated only as rough orders of magnitude. The financial aspect is not merely the other side of the coin. Financial flows have an independent existence of their own and at times tell a different story. This is particularly so for non-socialist economies where saving and investment activities are carried on by different groups who are brought together through the operations of money and capital markets. As capital formation is the key factor in economic development, its financing, i.e. the process of saving and the projections of sources and uses of funds, requires careful study. Independent projection of saving and the flow of funds is necessary because the different ways in which the necessary equality between realized capital formation and realized saving are achieved have repercussions on the general price level, relative prices, interest rates, income distribution, etc. In order to integrate the financial flows with the real flows, it is necessary that the projections of the flow of funds be tied into the country's system of national accounts.

In Pakistan, though the Second Five-Year Plan made an attempt to analyse financial flows separately, they could not be integrated with national income accounts. Three different tables were set up to indicate the sources of funds for each sector of the economy for which development programmes were separately formulated, viz. the public sector, the private sector and

the semi-public sector. The sources of funds available to the public sector were subdivided as follows:

1. Surplus on revenue account.
2. Capital receipts.
3. Counterpart funds released from deposit against commodity aid.
4. Customs receipts on commodity aid.
5. Foreign aid and loans.
6. Resources of local bodies.
7. Additional taxation.
8. Deficit financing.

The uses of funds for the public sector were divided between the public sector's own development programme and loans to the semi-public sector. Other separate tables provided further details regarding items on the sources side.

The table regarding the financing of the semi-public sector provided for the following sources of finance:

1. Government loans.
2. Foreign loans.
3. Own resources of semi-public institutions.
4. Private participation.
5. Loans from banks.

These sources equalled the total plan allocation of investment for the semi-public sector. No transfer to any other sector was involved.

Financing of the private sector relied on the following sources of funds:

1. Government loans.
2. Foreign loans and investment.
3. Self financing.
4. Loans from commercial banks.
5. Loans from specialized credit institutions.
6. Stock Exchange.

This division was necessary to determine the internal financial consistency of the Plan.

Perspective Planning and Future Problems for National Income

The First Five-Year Plan was designed to realize certain

immediate goals in terms of increases in total and *per capita* income. Its vision was limited to the period for which it was framed. The Second Five-Year Plan pointed out the need for a longer-term perspective. It was pointed out that 'the second Plan has, therefore, to be viewed in the broad perspective of long term growth of the economy'. The objective stated was to double the pre-Plan level of national income in the Fourth Plan period and to quadruple it in the Sixth Plan period. Apart from setting these long-term objectives, no serious attempt was made on perspective planning at that stage. With the commencement of preparation for the Third Five-Year Plan, an attempt is now being made simultaneously to draw a full perspective plan covering a longer period. The targets and the strategy of the Third Five-Year Plan would have to be determined in the framework of this Perspective Plan.

The need for accurate statistical information with regard to the structural relationships within the economy and the flow of resources in different sectors is more acutely felt in perspective planning.[1] While for short-term plans, financial estimates and indirect projections of real magnitudes may suffice, structural changes play a vital role in long-term planning. The strategy of the long-term planning has to define the exact course which the development process would take and the changes in the relative sizes of various sectors of the economy which are likely to be brought about.

Preparation of a comprehensive statement on national accounts has, therefore, attracted considerable attention recently. A Committee of Experts on the National Accounts of Pakistan was established in November 1961. This committee has chalked out a programme for compiling national accounts. These accounts, which would be on an annual basis covering the fiscal year (July to June), would contain separate estimates for each province as well as aggregate estimates for the country as a whole. The estimates, which would be presented both in current and constant prices, would include four main statements, namely,

    (*a*) National Product
        (i.e. distribution by industries),

[1] The problems of perspective planning are discussed in detail in an excellent paper by Dr. E. F. Szczepanik which was presented to the C.E.N.T.O. Conference on National Income Accounting held in Murree in May 1962.

(*b*) National Expenditure
    (i.e. consumption and investment expenditure),
(*c*) National Income by type of organization, and
(*d*) National Income by distributive shares.

These would be accompanied by a number of sub-statements providing sectoral details.

Sources and Uses of National Resources

(Rs. million)

	First Plan[a]						Second Plan[a]						Percentage increase in 1964–65 compared with 1959–60
	1955–56	1956–57	1957–58	1958–59	1959–60	Total First Plan period	1960–61	1961–62	1962–63	1963–64	1964–65	Total Second Plan period	
Sources:													
Gross national product	18,200	22,630	22,200	24,500	25,530	112,960	26,235	27,090	28,215	29,370	30,580	141,490	20
Inflow of foreign resources													
Aid, loans and investments	525	515	577	710	1,125	3,452	1,250	1,350	1,550	1,800	2,050	8,000	} 60
Foodgrains and other aid (U.S. P.L. 480)	145	430	358	315	370	1,618	340	340	340	340	340	1,700	
Foreign exchange reserves[b]	− 340	90	300	50	− 270	− 170	—	—	—	—	—	—	—
Total resources	18,530	23,665	23,435	25,575	26,655	117,860	27,825	28,780	30,105	31,510	32,970	151,190	23
Uses:													
Investment[c]													
Public	770	920	1,210	1,370	1,680	5,950	} 3,100	3,350	3,700	4,150	4,700	19,000	75
Private	900	930	1,000	1,000	1,000	4,830							
Consumption													
Public	2,000	2,250	2,700	2,550	2,500	12,000	2,600	2,700	2,800	2,900	3,000	14,000	20
Private[d]	14,860	19,565	18,525	20,655	21,475	95,080	21,985	22,590	23,465	24,320	25,130	117,490	17
Total uses	18,530	23,665	23,435	25,575	26,655	117,860	27,685	28,640	29,965	31,370	32,830	151,190[e]	23

[a] The First Plan estimates are in current prices whereas the Second Plan estimates are in constant prices, with 1959–60 as the base period.
[b] Minus sign indicates that reserves were built up, thus reducing the availability of resources, and vice versa. Figures for 1959–60 are till March 1960.
[c] The First Plan estimates have been adjusted to the definition of development expenditure used in the Second Plan.
[d] Obtained as a residual. It includes non-Plan investment for which no estimate is available.
[e] Includes Rs.700 million of local expenditure on Indus Basin Replacement works.