

## FOREWORD

The system of National Accounts (SNA) is widely recognized as a powerful tool for monitoring the performance of an economy. The SNA provides a comprehensive accounting framework within which economic data can be compiled and presented for purposes of economic analysis, policy making, planning and development.

This publication presents revised and updated selected national accounting estimates including Gross Domestic Product (GDP) and Gross fixed Capital formation (GFCF) for the reference year 1999-2000. Compilation of these estimates is based on the concepts of "A System of National Accounts 1993" (1993SNA) of the United Nations, as far as possible, to facilitate international comparison. This work, of shifting the base year of national accounts of Pakistan from 1980-81 to 1999-2000 has taken many years.

National accounts estimates were prepared for the first time in Pakistan in 1949. Since then it has become a regular feature to estimate national accounts at current and constant prices. It was in 1988, that the base year of national accounts estimates had been changed from 1959-60 to 1980-81. Attempts were made to change the base year first to 1990-91 and later to 1995-96. These attempts, however, failed for one reason or another. The result was that national accounts estimates based on benchmark of 1980-81 became antiquated and could not capture the true structure and parameters of economic and technical/technological changes which had occurred during the last twenty years. As such, a number of economic areas remained either uncovered or under-reported and underestimated.

The issue of **rebasings the national accounts** estimates, therefore, gained prime importance. The Annual Plan Coordination Committee (APCC) meeting held in March 1997 considered this issue and recommended to improve and rebase the national accounts of Pakistan to make the GDP and investment figures more realistic.

Accordingly, a Technical Committee on National Accounts (TCNA) was constituted in the Federal Bureau of Statistics (FBS) for improvement and rebasing of national accounts of Pakistan. This committee was headed by Dr. A. R. Kemal, Director, Pakistan Institute of Development Economics (PIDE). Eight technical sub-committees were further set up to assist the Committee to look into the sectoral issues individually. The committee examined the sectoral inadequacies of existing practice, examined the constraints and proposed an action plan to bring national accounts estimates in line with the latest accounting framework of 1993 UN System of National Accounts (SNA). The Committee proposed to conduct 16 studies at a cost of Rs 93.30 million to ensure methodological

improvement and data adequacy. The studies were required to be outsourced through bidding.

The recommendations of TCNA were presented before the National Statistical Council (NSC) in its 5<sup>th</sup> meeting held on August 03, 1998 at Islamabad. The NSC agreed in principle to carry out the proposed action plan. Keeping in view the financial constraints and on the recommendation of IMF to utilize the expertise of national accounts personnel for conducting the studies, FBS, accordingly, launched a Research & Case Studies (RCS) project to undertake 23 studies covering various sectors of the economy with the purpose of providing empirical and methodological framework for profiling the revised base (1999-2000) of national accounts. The specific objectives were:

- a) To collect data and develop the estimates of gross output, gross value added and gross fixed capital formation.
- b) To estimate the contribution of sector/sub-sectors towards national economy in terms of GDP growth rate and investment.
- c) To replace old indicators of constant growth being used in National Accounts and implement as far as possible the framework of UN SNA.
- d) To enlarge the coverage and scope by inclusion of new activities in the sector and to estimate the structural changes that have taken place particularly in manufacturing industry.

The project aimed at stimulating research activities for better adaptation of statistical system and for collection, compilation and cross checking of data available from regular sources. It also envisaged quick surveys for improving the methodology of estimation of macro variables specifically in the areas of agriculture, industrial, energy, construction, financial statistics and services sectors.

The RCS project started in July 2000 and was to be completed by June 2002 at a cost of Rs. 38.5 million (the actual expenditure amounted to Rs. 30.643 million). The studies were carried out through a mixed scheme of public-private partnership. As such, six studies were outsourced to private sector researchers, whereas remaining 17 studies were undertaken by the FBS itself, as listed below:

### In-House Studies

1. Fishing
2. Shipping
3. Services
4. Livestock
5. Mining & Quarrying
6. Public Admin & Defence
7. Slaughtering

8. Water Supply
9. Transport excluding Shipping
10. Financial Institutions
11. Producer Price Index
12. Electricity & Gas
13. Agricultural Crops
14. Non-Profit institutions for Households
15. Construction
16. Large-scale Manufacturing
17. Supply & Use Table (SUT) 1999-2000

#### Out sourced Studies

1. Wholesale & Retail Trade, Hotels & Restaurants
2. Forestry
3. Savings in Pakistan
4. Depreciation
5. Small-Scale Manufacturing
6. Investment

These studies were reviewed by the Committee on Review and Evaluation of Research and Case Studies headed by Dr. N. M. Larik, Director General, FBS and including members such as Chief Economist, Planning Commission; Economic Advisor, Finance Division; Member, Central Board of Revenue (CBR); Deputy Director General, Statistics Division; and Deputy Director General, FBS National Accounts.

Once cleared by this Technical Committee, the data and methodology enunciated by these studies were employed to convert to the revised base (1999-2000) estimates. These were then presented twice before the special meetings of National Accounts Committee (NAC) held on April 24, 2003 and July 1, 2003 under the chairmanship of Mr. Yousaf Kamal, Secretary, Statistics Division. Having gone through the original studies and the data, the NAC advised to verify and re-authenticate the data used and methodology developed by the above studies.

Every possible effort was, accordingly, made to introduce authenticity and transparency in data and estimation procedures. All the relevant Federal Ministries / Divisions, Provincial Departments and other public / private sector organizations were approached to verify and authenticate data pertaining to their relevant sectors. Special efforts were made to collect fresh data and enhance coverage. Special quick surveys were also conducted for this purpose. Dr A. R. Kemal, Director PIDE, alongwith his team, also provided very useful advice to improve the accounting system. In particular, the study on agriculture was thoroughly revised by him. He also supervised the preparation of estimates of large scale manufacturing sector as per CMI 2000-01. In fact, all the studies were improved to the level best suited for change of base. As a result of above efforts, coverage of data and its consistency and credibility has been improved significantly in terms of activities as well as enterprises over the 1980-81 based estimates for 1999-2000 in almost all the sectors.

The national accounts estimates thus improved were again presented before the National Accounts Committee (NAC) in its Special Session held on 22nd December, 2003 under the chairmanship of Mr. Yousuf Kamal, Secretary, Statistics Division. The NAC considered, reviewed and finally approved the National Accounts of Pakistan for 1999-2000 rebased from 1980-81 to 1999-2000. The salient features of these accounts are given hereunder.

**Gross Domestic Product (GDP)** quantifies the production in the economy. It can be measured in three but equivalent ways, namely production, expenditure or income approaches:

- i. **Product Approach:** We deduct value of intermediate consumption from value of output to arrive at gross value added.
- ii. **Income/Cost Approach:** Here consideration is given to the costs incurred by the producer within his own operation. Income paid out to employees, consumption of fixed capital, and the operating surplus, add up to gross value added.
- iii. **Expenditure Approach:** This approach looks at the final uses of the output for private consumption

The product approach is mostly used to estimate national accounts in Pakistan. **Product approach** is applied to gross value added in agriculture, mining & quarrying, manufacturing, electricity, gas & water supply, transport & communications, wholesale and retail trade, finance & insurance and ownership of dwellings. The estimates of public administration and defence and service sectors are worked out using **income approach**. **Expenditure approach** is used to estimate only construction sector.

The estimates of agriculture sector have been improved considerably. A number of fruits and flowers have been introduced for the first time in estimation of minor crops sector. Livestock sector now covers estimates on natural growth and net sales of livestock animals. Wild fruits, honey, sericulture, medicinal herbs have been added to the forestry sub-sector estimates. Mineral exploration activities and surface minerals have been introduced in estimation of Mining and Quarrying sector. Slaughtering, which was part of livestock sub-sector as per old base, has now been re-estimated and added to the manufacturing sector as per recommendation of UN SNA 1993. Water supply, not estimated earlier, has been estimated as a sub-group of electricity, gas and water supply & sanitation sector.

Among the services sectors, the estimates of transport and communications, wholesale and retail trade, financial

institutions and social, community and private services have shown tremendous improvement. Transport and Communications sector now additionally cover estimates of inland water transport, travel agents, courier services, shipping, forwarding & clearing agents, intra-city transport and non-mechanized road transport in the rural areas. Hotels & restaurants (earlier part of social, community & personal services sector) have now been added to the wholesale and retail trade sector. Similarly, data of discount and guarantee houses, venture capital companies, investment companies, exchange companies, postal life insurance and employees old-age benefit institution (EOBI) has been included first time in the financial institutions sector. Social, community & personal services now also include estimates of computer related activities, recreational activities and non-profit institutions. The estimates of ownership of dwellings and public administration and defence had to be readjusted downwards because of rectification of methodology. The GVA of ownership of dwellings show a decline in fresh estimates due to increased input cost as per freshly conducted surveys.

The above efforts culminated in improvement of Gross Domestic Product (GDP) estimates for 1999-2000 by **19.5 %** over the old base estimates. The gross value addition (GVA) of both agriculture and industrial sectors improved by **18.3 %**. The GVA estimated for services sectors, as a whole, reflect a greater improvement of **20.8 %** over the old base. The exercise shows improvement in per capita income from **Rs. 21,376 to Rs. 25,333** for the year 1999-2000.

**The Gross Fixed Capital Formation (GFCF)** is measured by the total value of a producer's acquisitions, less disposals of fixed assets during the accounting period plus certain additions to the value of the non-produced

assets realized by the productive activity of institutional units. The rebased estimates of Gross Fixed Capital Formation (GFCF) have improved coverage showing an increase of **34.3 %** over 1980-81 based GFCF as is clear from the following table. The largest percentage increase (120.6%) in GFCF has been in the Agriculture sector.

The Federal Bureau of Statistics has now been able to complete this gigantic task of changing the base of National Accounts from 1980-81 to 1999-2000. This would now also become the base for quarterly national accounts. The summary estimates are given in the Box below.

**Recommendations:** No doubt a lot of work has been done to improve the national accounts. There still remains, however, room for further improvement. It is understood that many economic activities still remain to be covered / incorporated in these accounts in the wake of rapid economic development and scientific and technological (especially IT related) changes taking place around the world. Economic activities of the informal sector still need to be fully captured. Newly emerging activities pose another challenge to national accountants. Some of these gaps will get identified when the results of Economic Census (1999-2000) become available in 2004-05. The Economic Census (1999-2000) will also help in improvement of sample frames of different economic activities for conducting future surveys. In these circumstances, the best course for such improvement remains frequent rebasing of national accounts at **five years** interval as also suggested by IMF. The National Accounts Committee has already decided in its meeting on 27th

<b>Box: Comparative Statement of GDP &amp; GFCF Estimates</b>			
<b>1999-2000 (Rs. billion)</b>			
<b>Sectors</b>	<b>1999-2000 Base</b>	<b>1980-81 Base</b>	<b>Change (%)</b>
<b>GDP</b>	<b>3,529</b>	<b>2,952</b>	<b>19.5</b>
Agriculture	924	780	18.5
Industry	798	676	18.0
Services	1,807	1,496	20.8
<b>GFCF</b>	<b>607</b>	<b>452</b>	<b>34.3</b>
Agriculture	75	34	120.6
Industry	241	176	36.9
Services	225	178	26.7
General Govt.	66	65	1.7

February, 2004 that national accounts should be regularly rebased every five years and the next rebasing should now be carried out in **2004-05**. Concerted efforts are, therefore, required along with provision of necessary staff & equipment requirements to achieve the desired results.

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