Annex VII

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WORKING PAPER ON
Development of Framework for Inter-Regional Comparison of SNA

1. INTRODUCTION

1.1 The national accounts statistics consists of coherent, consistent and integrated set of macro-economic accounts - current and accumulation accounts, balance sheets and Tables based on agreed concepts, definitions and accounting rules. From the stage of production of goods and services to the stage of their final disposal, innumerable transactions take place. National accounts help us to understand in a nutshell how these various transactions are inter-related and give us an idea of the working of an economy. The **Gross Domestic Product (GDP)** is the most important macro-economic aggregate of national accounts. It is the value in monetary terms of all goods and services produced in an economy in a given period of time. The production boundary is specified in the System of National Accounts. GDP is used to assess the performance of the economy and also used in compiling various rates and percentages (e.g. rates of saving, capital formation and fiscal deficit as percentage of GDP). Much of the policy making in the public domain relies heavily on national accounts data.

1.2 In the current concerns of policy planners to achieving the Millennium Development Goals (MDG) and eradication of poverty, the national accounts statistics provide substantial inputs for policy making. Since the concepts, definitions and procedures of compiling national accounts have been well established in the System of National Accounts (SNA) of the international agencies, it is essential for the SAARCSTAT to prepare a common framework for compiling and presenting comparable sets of national accounts data across the SAARC countries.

1.3 This paper attempts to present a framework for inter regional comparison of national accounts across the SAARC countries. In Section 2, some important features of 1993 System of National Accounts (SNA) have been highlighted and the suggested framework of national accounts for the SAARC countries is presented in Section 3. The concluding remarks are given in Section 4.

2. SYSTEM OF NATIONAL ACCOUNTS (SNA)

2.1 The SNA is a set of macroeconomic accounts that provides a comprehensive view of a country's economy. The workings of the economy are recorded in balance sheets and

tables called accounts that are integrated, coherent and consistent, based on internationally agreed concepts, definitions, classifications and accounting rules.

2.2 This is a comprehensive framework as it can accommodate a great mass of economic data, organized according to economic principles and perceptions of how economic activities are carried out by the different sectors and their relationships. It provides an adequate conceptual framework to be able to deal with emerging concerns and their relations with sectors of the economy.

2.3 As an integrated system, it applies the same concepts, definitions and classifications of all accounts and sub accounts. The accounts are presented from several point of view; that is as stock and flows, intuitional units and establishment units, market output, output for own final use and other non-market output, consumption expenditure and actual consumption, whose definitions and classifications are linked into a coherent structure. The SNA is also consistent, which means that each economic flow or stock is measured identically for the units involved by applying the same concepts and definitions and also by using a single set of accounting rules for all entries in the system.

Major Uses of the SNA

2.4 The SNA is a rich source of data that are extremely useful in economic analysis for purposes of policy formulation and economic decision-making. National accounting information gives a factual picture on the economy and the different factors that are relevant to the economic situation, which enables analysts and planners to assess the probable developments and to formulate policy measures that are needed to, bring the whole situation to a desired goal. The SNA provides the framework for the presentation of economic flows in as simple and comprehensive manner as to facilitate the understanding of the workings of the economy and make possible the conduct of fairly elaborate and useful analytical work. With the development of satellite accounts, this expands the analytical capability of the national accounts. An analysis of the national accounts series over a period of time, and, for that matter, even for a given year, reveals structural properties of the economy that can lead to useful conclusions for policy formulation. Such relevant information, among others, as the relative contribution of the production sectors of the economy to the gross domestic products; the allocation of the final output to households, general government, capital formation and foreign trade; the varying capital requirements of the production sectors and the location and availability of savings for capital development; and the extent to which the rest of the world influences our economy, are useful information for such purposes as budgeting and allocation and coordination of available resources among competing with the compilation of the system of national accounts and the increasing demand for its expansion and improvement is the need to produce more and better statistical data. The fact remains “that the national accounts, in the widest sense of the work, provide an excellent means of appraising any actual or proposed scheme for the collection of economic statistics since a place for virtually all these statistics is provided systematically somewhere in these accounts. The system of national accounts indeed provides a framework for statistical development as it identifies data gaps and weaknesses in the existing data and provides a check for consistency of the statistical reporting system.

2.5 The 1993 SNA is a major development in national accounting. It retains the basic features of the 1968 UNSNA while addressing the growing complexity of transactions in the various economies. Concepts are more clearly and simply presented for a better understanding of the system. The 1993 SNA is more comprehensive, transparent and is harmonized with other international statistical standards. More importantly, this is the result of a collaborative effort of EUROSTAT (the statistical office of the European communities), International Monetary Fund (IMF), Organization of Economic Cooperation and Development (OECD), the UN Statistical Division (UNSD) and the Regional Commissions, and the World Bank.

Features of the 1993 SNA

2.6 The 1993 SNA has been designed/updated to deal with emerging issues such as the increasing participation of the services industry, growing complexity of financial transactions and sophistication of financial instruments, the changing role of government, and the worsening environmental conditions as a result of economic activities, etc. It describes how specific services are treated such as Financial Intermediation Services Indirectly Measured (FISIM); provides for the separation of financial corporate sector and for the classification of financial instruments; gives further details of government activity; and opens the system for environmental accounts to measure cost of using the environment.

2.7 Since the SNA is expected to respond to issues which go beyond the production analysis, the accounts have therefore been extended to cover not only the production process but also the ensuing income from production being distributed to the different institutional sectors (households, government and NPISH) who are the owners of the factors of production; the redistribution processes through transfers; and the linkages of economic flows to stocks.

2.8 Emphasis is now given to institutional sector dimension which allows a look into their behavior and how transactions in each sector interact with that of other sectors. Thus, it requires that data be compiled not only of establishments that are grouped together as industries but also of institutional units, as well. The 1993 SNA compared to the 1968 version of the SNA deals explicitly with a wide range of conditions and institutional arrangements that may be present in developed and developing countries. It provides clarifications on a number of specific issues such as valuation and aggregations, illegal activities, value added take. The SNA is now harmonized with the Balance Of Payment (BOP), Government Financial Statistics (GFS) and Money and Banking Statistics (MBS). The new version of the SNA introduces the following new concepts and procedures:

2.9 The Gross National Product (GNP) is replaced by the Gross National Income (GNI). The Current Income and Outlay accounts are articulated with introduction of the Primary and Secondary Distribution of Income Accounts and the Use of Income Accounts.

2.10 Concept of "mixed income" for unincorporated enterprises is introduced and a clearer identification of the following is provided; market output, output for own use, and other non-market output, final consumption. Inclusion in the production boundary of activities which are illegal by law such as murder for hire or those illegally concealed from government. The treatment/allocation of FISIM and other imputed output are adequately explained. The accumulation Accounts which is comprised of the Capital Account, Financial Account, Other Changes in Asset Account and Revaluation Account present explicitly the flows recorded in these accounts and how these ends up as stocks in the Balance Sheet.

3. FRAME WORK FOR INTER-REGIONAL COMPARISON OF SNA AMONG SAARC COUNTRIES

3.1 The simplest form of national accounts may be depicted by familiar equation, Y=C+I, indicating that the income produced (Y) is used up during the accounting period partly as current consumption (C) and partly for acquisition of assets (I). sometimes, when funds can be borrowed from abroad for purposes of investment (B), income produced can be regarded as the sum of C and S (current saving), and S+B=I can be used for acquiring assets.

3.2 If, for a country, information is available on Y, C and I for the past years (as well as on population) it is possible to know how much the per capita income is, and how it has grown over time. Without this information, it is difficult, if not impossible, to consider the question of future rate of growth. If Y is given by industrial break-downs, then knowing the past rates of growth of individual activities, viz., agriculture, industries, services, etc., one can envisage future rates of growth by sector, consistent with the overall rate of growth to be achieved. To achieve this target, the country has to improve its production per worker in various activities. Since a man can produce more when aided by a machine than otherwise, improvement of productivity, at least in the initial phase, depend on the extent to which machinery can be provided and factories can be set up to utilize them This implies that the share of I in Y will have to be increased for the country. But since this would imply reduction in C (since Y=C+I) and absolute reduction of consumption standards, it is not acceptable in most countries, one has to ensure some improvement in the rate of investment (I/Y), simultaneously keeping the rate of growth of consumption reasonably low. Any study along this line is not possible unless the national accounts are available for a number of years.

3.3 In view of the above, some suggestions regarding development of framework for inter–regional comparison of SNA among SAARC Member States have been presented here for consideration. In this paper, a set of national income and related aggregates on the basis of some priority have been suggested for compilation among SAARC countries. However, for instituting this frame work, the SAARCSTAT has to first look into the following aspects;

- Level of statistical development in different member countries.
- Status and coverage of National Accounts Statistics
- Organization / office responsible for preparation of National Accounts Statistics.
- Level of autonomy enjoyed by the organization.

- Constitution of an agency at central level for standardization of definitions, concepts, and methodology for implementing the framework
- Requirements of data within member countries.
- Requirements of international agencies
- Key National Accounts indicators required for comparison across the countries.

First priority indicators.

3.4 As a first priority, SAARCSTAT can consider SNA indicators given in Table1 for inter-country comparison and develop suitable frame work for generating estimates of income (Y) or GDP by industry of origin. The following need to be debated in this context:

- production boundary being followed in member countries
- methodology of estimation
- need to have a common base year
- compilation of estimates at basic, producer or at factor cost
- Common member country currency for valuation
- Common reference period
- Common industrial / sectoral classification.

Table 1: GDP by industry of Origin

At current / base year prices	
1	**GDP by industry of origin**
	• Agriculture and allied activities
	• Mining and quarrying
	• Manufacturing
	• Electricity, gas, and water supply
	• Construction
	• Trade, hotels and restaurants
	• Transport, storage and communications
	• Banking and insurance
	• Public administration and defence
	• Other Services
2	Indirect taxes less subsidies
3	GDP at current market prices
4	Net factor income from abroad
5	GNP at current market prices

Second priority indictors

3.5 As a second priority indicators, items of expenditure on Gross Domestic product like final consumption expenditure, capital formation and net exports, as given in Table 2 may be considered. To compile these items, SAARCSTAT has to consider the following parameters:

- Basket of goods and services of private final consumption.
- Coverage of NPISH in consumption expenditure
- Valuation of Government final consumption expenditure
- Asset boundary for fixed capital formation
- Approach for valuing final consumption expenditure
- Approach to be adopted for estimation of fixed capital formation
- Method of valuation of change in stocks.
- Components of imports and exports
- Valuation of imports and exports (fob or cif)
- Data sources for imports and exports data

Table 2: GDP – Expenditure Aggregates

At current /base year prices
Expenditure on GDP • Private final consumption expenditure • Government final consumption expenditure • Gross fixed capital formation • Increase in stocks • Exports of goods and services • Less: Imports of goods and services

Third priority indicators

3.6 After finalizing the framework for the priority items given in Tables 1 and 2, SAARCSTAT can work on collection and compilation of more details of gross capital formation and private final consumption expenditure etc. as given in following tables,

Table 3: Capital Formation

Gross capital formation (GCF)

- **Gross fixed capital formation (GFCF)**
  - Construction
  - Machinery & equipment
- **Change in stocks**

Less: Consumption. Of fixed capital
Net capital formation (NCF)

Table 4: Private Final Consumption Expenditure

1	durable goods
2	semi-durable goods
3	non-durable goods
4	services
5	**private final consumption exp. in the domestic market**
6	**add:** direct purchases abroad by resident households
7	**less:** direct purchases in the domestic market by non-resident households and extra territorial bodies
8	**private final consumption expenditure**

Fourth priority indicators

3.7 At the fourth stage of development, SAARCSTAT may consider compilation of quarterly comparable estimates of GDP at current and at base year prices by industry of origin and cross classified by member states. In addition to these, items given in the following Tables 5 and 6, may also be considered for analytical purpose.

Table 5: Domestic Product, Consumption Expenditure, Saving and Capital Formation

	Key indicators for inter-regional comparison of SNA among SAARC Member States	For at least five years along with base year data	Percentage distribution to GNP at Market prices	Rate of growth over previous year
1	GDP at factor cost			
2	indirect taxes less subsidies			
3	consumption of fixed capital			
4	GDP at market prices			
5	NDP at market prices			
6	GNP at factor cost			
7	NNP at factor cost			
8	GNP at market prices			
9	NNP at market prices			
10	net national disposable income*			
11	personal disposable income*			
12	PFCE in the domestic market			
13	private final consumption exp.			
14	government final consumption expenditure			
15	exports of goods & services			
16	imports of goods & services			
17	gross domestic capital formation			
18	net domestic capital formation			
19	gross domestic saving*			
20	net domestic saving*			
21	per capita GNP at factor cost			
22	per capita NNP at factor cost			
23	rate of gross domestic saving*			
24	rate of net domestic saving*			
25	rate of GDCF			
26	rate of NDCF			
27	GDP at factor cost			

28	GNP at factor cost			
29	NNP at factor cost			
30	NNP at factor cost (on the basis of purchasing power parity)			
31	per capita NNP			
32	Per capita NNP((on the basis of purchasing power parity)			
33	population * *			

Table 6: Summary of national accounts aggregates

item
GDP by industry of origin
GDP by industry of origin
1. Agriculture and allied activities
2. Mining and manufacturing
3. Electricity, gas, and water supply
4. Construction
5. Trade, hotels, transport and communication
6. Banking and insurance
7. Public administration and defence
8. Other Services
9. GDP at factor cost
10. indirect taxes
11. less subsidies
12. GDP at market prices
13. final consumption expenditure
13.1 PFCE
13.2 GFCE
14. GCF
14.1 GFCF
14.2 Changes in stocks
14.3 Valuables
14.4 errors
15. Exports
16. ***Less*** Imports
17. Discrepancies
18. GDP at market prices
19. Compensation of employees received from the rest of the world
20. Compensation of employees paid to the rest of the world
21. Property income received from the rest of the world
22. Property income paid to the rest of the world

item
23. Net factor income from abroad
24.GNP at factor cost
25. CFC
26. Net national product at factor cost
27. Population (in mn)
28. Per capita inc (Rs.)
29. Gross domestic saving
Household sector
• *financial saving*
• *saving in physical assets*
Private Corporate sector
Public sector
• *public authorities*
• *NDCUs*
30. Net capital inflow
31. GCF
31.1 household
31.2 private corporate
31.3 public sector
31.4 valuables
31.5 errors and omissions
32. other current transfers from rest of the world (net)
33. Other current transfers by resident sectors other than general government to the rest of the world
34. Other current transfers by resident sectors other than general government from the rest of the world
35. Net national disposable income
35.1 PFCE
35.2 GFCE
35.3 Net Domestic Saving
35.4 Statistical Discrepancy

4. CONCLUDING REMARKS

4.1 The development of a framework for inter-regional comparison of national accounts among the SAARC countries will be a difficult task, as these countries are at different levels of statistical development and national accounts compilations. The approach for the preparation of the framework should, therefore, be step-wise. In the first step, perhaps the focus could be on simple compilations of GDP by industry of origin and national income as well as per capita income. The second stage of framework could aim at compilation of GDP estimates by expenditure aggregates. The third

priority indicators could be to aim at a break-up of the estimates of GCF and PFCE by components. The fourth priority indicators could be to aim at institutional sector accounts as well as full set of macro-aggregates at national level.

4.2 It may be difficult for any one national statistical office to work towards the preparation of framework or compile comparable sets of data for the SAARC member countries. This task could only be achieved only by creating a statistical cell in the SAARC Secretariat, which could also coordinate with the regular work of SAARCSTAT. This cell, can work on frameworks for various statistical compilations and preparation of comparable datasets in respect of the member countries. This cell, besides doing these functions, should also help the countries in improving the quality of statistics and implement international standards. Eventually, the SAARCSTAT can model itself on the lines of EUROSTAT in the years to come.