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NATIONAL ACCOUNTS AND BALANCES: SYSTEM OF NATIONAL ACCOUNTS (SNA)

Progress report on the implementation of the guidelines and
the establishment of international data series in national
accounts and related statistical fields

Report of the Secretary-General

SUMMARY

The present report, submitted to the Commission for information, contains an analysis of the availability of national accounts and related data for individual countries. National accounts proper, as well as related data sets which are not necessarily integrated with the national accounts by individual countries (such as government accounts and tables, input-output tables, national wealth statistics and income distribution statistics) are considered. The analysis is based on the responses to the SNA (System of National Accounts) and MPS (System of Balances of the National Economy) national accounts and material balances questionnaires, as well as on data available through national and international publications. Conclusions are drawn concerning the patterns of development within the wide area of national accounting statistics, and an outline is given of a long-term programme by which the Statistical Office can establish international data series which would supplement the conceptual developments in these fields.

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INTRODUCTION

1. The Statistical Commission has devoted much attention to the development of internationally accepted national accounts standards. As a result, much progress has been made in the development of concepts and classifications, particularly since the introduction in 1968 of the present System of National Accounts (SNA) 1/ and in 1971 of the conceptual guidelines contained in the Basic Principles of the System of Balances of the National Economy (MPS). 2/ International data collection through the annual national accounts and material balances questionnaires sent by the Statistical Office to countries has lagged considerably to a point where it has become difficult to evaluate the limitations and possibilities of conceptual recommendations. To remedy this situation, the Statistical Office has embarked on a long-term programme to improve the quality and coverage of the present international data series on national accounts and to extend the series to specialized fields of national accounting such as input-output tables, income distribution and government sector statistics in parallel with the conceptual development. The final aim is to arrive at a better balance between conceptual and data development.

2. As a first step, several inquiries were sent to countries and international organizations in order to assess the availability and quality of statistics in various national accounting fields. An analysis was also made of country responses to the national accounts and material balances questionnaires, which updated and extended the information submitted to the Commission at its twentieth session (E/CN.3/507). Other studies have been carried out on national accounts practices, 3/ sources and methods of income distribution statistics 4/ and national wealth estimates, as reflected in national publications. The SNA questionnaire tables to which reference is made in the present document are those in the latest version of the SNA questionnaire and reflect all modifications that were introduced in 1980. The results of the analysis of country practices are presented in tables in section I below. In addition, two data sets of the International Monetary Fund (IMF) have been examined for which conceptual "bridges" with SNA have been prepared: government finance statistics and balance-of-payments statistics. The results of the examination have also been included in tables in section I. Information in all tables is presented for three groups of countries: developed countries with market economies, developing countries with market economies and countries with centrally planned economies. The country groupings are those used in the Yearbook of National Accounts Statistics. 5/ Data availability shown in the tables refers only to data that are available to the Statistical Office. This may deviate from what is now available in the countries. Any conclusion drawn from the information presented does not necessarily apply to the actual situation in the countries.

3. In order to draw such conclusions with regard to the future development of national accounting and specialized data series, the data availability and adequacy have been analysed in section I below on the basis of six national accounting data subsets: (a) gross domestic product (GDP) and net material product (NMP); (b) institutional sector accounts; (c) government accounts and tables; (d) input-output statistics; (e) national wealth and balance-sheet statistics; (f) income distribution and related statistics. These fields, though integrated conceptually,

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are identified separately in the methodological development of SNA, as reflected in separate guidelines and in the forthcoming national accounting handbook series; furthermore, they represent independent data sets in the compilation and use of those data for analytical purposes. Section I below starts with a comparative analysis of data availability in general for the six subsets, and a similar analysis that focuses on those countries for which adequate data are available for each of the subsets, followed by a detailed examination of the data availability in each of the subsets individually. On the basis of the analyses, some general conclusions are drawn in section II below that are relevant for the future development of the data base, and some elements of a strategy that may be followed in order to improve the quality and extend the present international data series on national accounts to other fields are described briefly.

I. ANALYSIS OF DATA AVAILABILITY

A. Data availability in general

4. It has been assumed here that the six national accounting subsets mentioned in paragraph 3 above can be defined in terms of the tables of the SNA and MPS questionnaires, except for the parts of the subsets on input-output statistics and income distribution and related statistics. In other words, the two national accounts questionnaires are assumed to comprise the selection of tables from the SNA and MPS recommendations that at present define the ultimate objective of international data compilation in national accounts and related statistics. The following tables are proposed to be included in each of the subsets:

(a) Gross domestic product and net material product. This subset is defined to include the tables that present the breakdown of GDP and NMP by expenditure, activity, institutional sector and cost composition in current and in constant prices (SNA questionnaire tables 1.1-1.3; 1.9-1.11; MPS questionnaire tables 1a, 1b, 2a, 2b, 4). Also included are the tables on alternative income concepts and capital transactions for the nation (SNA 1.8-1.12).

(b) Institutional sector accounts. This subset includes the summary income and outlay accounts for domestic sectors and external transactions (SNA 1.4, 1.5, 1.6 and 1.7) and the complete set of production, income and outlay, capital accumulation and finance accounts for domestic institutional sectors and transactions with the rest of the world (SNA 3.11-3.14; 3.21-3.26; 3.3-3.34; 3.41-3.44; 3.51-3.53).

(c) Government accounts and tables. This subset includes the complete set of accounts and balance sheets for general government and its subsectors (SNA 3.11-3.15) as well as the tables on the functional breakdown of government consumption and government outlays in current and constant prices, and the breakdown of social security benefits and assistance grants to households by purpose and type (SNA 2.1-2.4). Also included in this subset is information on government gross fixed capital formation and stocks of fixed assets held by general government, classified by type, in current and constant prices (SNA: parts of tables 2.7, 2.8, 2.13, 2.14).

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(d) Input-output statistics. This subset, which is not fully covered by the questionnaire tables, consists of three parts: input-output tables, "marginal" input-output data and final demand breakdowns. The input-output tables cover the make and use matrices in current and constant prices (SNA 4.13-4.16), commodity by commodity or industry by industry input-output tables, as well as import matrices with cross-classifications by types of commodities and destinations. The latter two tables are not included in the quesionnaires. The so-called "marginal" input-output information includes the supply and disposition tables, the tables on the derivation of value added by activity from gross output and intermediate consumption, as well as the tables on the cost components of value added and employment by kind of economic activity (SNA 4.1-4.2; MPS 3, 5a, 5b). The third part, final demand, is defined in terms of the tables on private final consumption expenditure by type and gross capital formation by type of goods and kind of economic activity of owner, in current and in constant prices as well as the breakdown of exports and imports of goods and services by type (SNA 2.5-2.12, 2.17; MPS 6a, 6b, 7a, 7b, 8, 9a and 9b).

(e) National wealth and balance-sheet statistics. This subset consists of the tables on stocks of reproducible fixed assets by type of goods and activity, in current and constant prices (SNA 2.13-2.16) as well as the institutional sector balance sheets (SNA 3.15, 3.25, 3.35, 3.45).

(f) Income distribution and related statistics. This subset is defined mainly on the basis of the provisional guidelines on income distribution statistics 6/ and partly in terms of questionnaire tables, taking into account the type of tabulations that countries compile. This subset comprises tables that reflect income and expenditure transactions classified by households, individuals, per capita and/or income recipients. The data presentations may take the form of tables with cross-classifications of income and expenditure items by type and groups of income units, such as size and fractile income groups of income, as well as socio-economic groups, or of accounts of subgroups of the household sector (SNA 3.31-3.35). The subset, therefore, covers all tables suggested in the provision guidelines, and also the breakdown of the household sector account into subaccounts for socio-economic groups as required in the SNA national accounts questionnaire. The subset, as defined above, does not only cover income distribution statistics in the traditional sense of the word, but also classifications of household consumption and accumulation.

5. The number of countries for which data are available for the six subsets, as defined above, varies considerably, as can be seen from table 1:

Table 1.   Number of countries for which national accounting
data sets were examined by the Statistical Office

National accounting data sets	All countries	Developed market economies	Developing market economies	Centrally planned economies
A. SNA and MPS national accounting quesionnaires (including subsets of GDP-NMP, institutional sector accounts, government accounts and tables)	158	26	119	13
B. Survey of national publications				
1. Input-output statistics	55	22	30	3
2. National wealth statistics	64	22	34	8
3. Income distribution and related statistics	60	21	33	6
C. IMF data sets				
1. Government finance statistics	117	26	89	2
2. Balance-of-payments statistics	113	25 a/	87	1

a/   Belgium and Luxembourg combined.

6.   The largest number of countries (158) submitted data through the national accounts and material balances questionnaires, which include data for the subsets of GDP-NMP, institutional sector accounts and government accounts and tables.   This refers to countries for which data are on tape for years since 1970. Questionnaires were sent to 175 countries; no replies were received from 17, mainly in the group of developing countries with market economies.   The number of countries on tape has been growing steadily.   In 1970, the number was 120; in 1976, when the prefilled questionnaire was introduced jointly with the Organisation for Economic Co-operation and Development (OECD), it had increased to 132; and the latest number is 158.   Many countries do not supply the requested data annually, as is reflected in the comparatively lower response rate, particularly of developing countries.   In 1978 and 1979, the response covered 122 countries, of which 25 were developed with market economies, 86 developing with market economies and 11 countries with centrally planned economies.   After the SNA questionnaire was revised

in 1980 (the MPS questionnaire was not changed), the response rate dropped:
107 countries replied, of which 24 were countries with developed market economies,
72 were developing countries with market economies and 11 countries with centrally
planned economies.

7.   The number of countries that have data available on the subsets of
input-output tables, national wealth statistics and income distribution statistics,
according to national statistical sources, is much lower.   The largest number of
countries (64) have compiled data on national wealth, followed by a slightly
smaller group (60) that have income distribution statistics, and still fewer (55)
that have compiled input-output tables.   The same pattern in country coverage of
the subsets applies to the group of developing countries and the countries with
centrally planned economies.   For developed countries with market economies, there
is virtually no difference in the number of countries that compile the three
subsets.

8.   The country coverage of the related IMF statistics on government finance and
balance-of-payments statistics comes much closer to the response to the national
accounts questionnaires, although it is still much lower.   Both IMF data sets cover
all developed countries, cover only partially the developing countries and there is
a very limited coverage of countries with centrally planned economies.

B.   "Adequate" national accounting subsets

9.   For each of the subsets mentioned above, only scattered information is usually
available.   Sometimes the available data constitute the first phase of a more
comprehensive coverage of subsequent data and, in other instances, the scattered
information is a by-product of compilations in other subsets.   It is difficult to
determine from the data available for individual countries which of the two
circumstances apply.   However, it is certain that very partial information on a
subset is not useful or "adequate" for analysis.   Based on analytical criteria of
"adequacy", table 2 below has been derived.   It shows the number and percentage of
countries, within the three country groups, that have adequate data sets available
for each of the subsets defined above.   The percentage is derived by dividing the
number of countries with adequate data by the number of countries for which
national accounts data are on tape (indicated in parentheses at the head of each
column) .

Table 2. Number and percentage of countries for which "adequate"
national accounting subsets are available

National accounting subsets	Groups of countries							
	All countries (158)		Developed market economies (26)		Developing market economies (119)		Centrally planned economies (13)	
	No.	%	No.	%	No.	%	No.	%
1. Gross domestic product or net material product	79	50	22	85	53	45	4	31
2. Institutional sector accounts	12	8	10	38	2	2	–	–
3. Government accounts and tables	11	7	10	38	1	1	–	–
4. Input-output statistics	55	35	22	85	30	25	3	23
5. National wealth statistics	23	15	13	50	3	3	7	54
6. Income distribution statistics	29	18	11	42	14	12	4	31

10. "Adequacy" is defined for each of the subsets as follows: For the GDP-NMP
subset, it includes the tables that present the activity and expenditure breakdown
of GDP or NMP in current as well as constant prices and that serve productivity and
growth analysis. The institutional sector accounts are considered to be adequate
if the complete set of income and outlay, capital accumulation and capital finance
accounts is available for at least the domestic sectors of general government,
enterprises and households, including private non-profit institutions, as well as
for transactions with the rest of the world. Only if a complete articulated set of
accounts is available for all sectors of the economy can an adequate flow-of-funds
analysis be carried out. Government accounts and tables are considered to be
adequate if data are available for the complete set of accounts of income and
outlay, capital accumulation and capital finance for the three subsectors of
general government, that is, central government; state, local and provincial
government; and social security funds. The input-output subset is adequate if
there is at least an input-output table, which is the basic requirement for
input-output analysis. The national wealth subset is considered to be available in
adequate form if there is at least information on stocks of reproducible fixed
assets in current or in constant prices, either classified by type of goods or kind
of activity. Data on the stocks of fixed assets are useful to supplement the
information on GDP used in productivity and growth analysis. Expansion of this

subset to include non-reproducible fixed assets, as well as financial assets, or even to cover institutional sector balance sheets which are used in portfolio analysis was not considered here, because it would be at present beyond the reach of the majority of the countries. Finally, the income distribution subset was considered to be adequate if such data covered the geographical area and the total population of the country with only minor exclusions (such as remote areas and institutional population) and if the income concept used included all important income items. The reasons for considering a data set "inadequate" are the exclusion of all rural areas or all urban areas, the exclusion of all items of property income (with the exception of centrally planned economies), the use of taxable income only and, for developing countries, the exclusion of all income in kind. However, exclusions of such items as "employers' contributions to social security and similar schemes" and "inputed rents of owner-occupied dwellings" have not by themselves been considered as reasons for "inadequacy". "Adequacy" has not been assessed on the basis of survey quality, data quality, income receiving unit or data tabulations. The criteria mentioned refer to the more limited set of income distribution tables, with the exclusion of classifications of consumption expenditures and accumulation of households. Therefore, the "adequate" subset of income distribution and related statistics covers income distribution statistics only. This more limited term is, therefore, used in table 2 as well as in the remainder of the present document.

11. A number of observations can be made on the basis of the information presented in table 2. In the first place, it shows that of the 158 countries only half have developed or made available to the Statistical Office adequate statistics on the GDP-NMP subset. This implies that, for the remaining 50 per cent of the countries, the Statistical Office has available only a rudimentary set of national accounts data which are not adequate for the types of analyses which are referred to in the GDP-NMP subset above; this percentage is very small for developed countries (15 per cent), but larger for developing countries (55 per cent) and for countries with centrally planned economies (69 per cent).

12. Secondly, a more detailed analysis of those countries with only rudimentary national accounts development shows that a fairly large number has compiled data for the more complex subsets of institutional sector accounts, input-output tables, national wealth and income distribution statistics. This applies to 12 per cent of the developed countries, to 10 per cent of the developing countries and to 31 per cent of the countries with centrally planned economies. This lack of information on the basic national accounts subset of GDP-NMP versus the availability of more complex subsets may simply reflect difficulties that countries experience in reporting data to the Statistical Office in conformity with the concepts and classifications of the SNA and MPS questionnaires, while the data on the basis of national concepts may actually be available. It may, however, also give an indication of a low quality of the complex data sets, as the lack of information on the basic subsets makes it impossible to evaluate the quality of the data presented in the more complex ones.

13. Finally, one is struck by the difference in country coverage for some of the more advanced subsets compared to others. Approximately a third of the countries

compile "adequate" input-output statistics and about a sixth of the countries compile adequate subsets of national wealth and income distribution statistics. The high rates apply particularly to developed countries (85, 50 and 42 per cent), to some extent to centrally planned economies (23, 54 and 31 per cent) and to a lesser extent to developing countries (25, 3 and 12 per cent). For institutional sector accounts and government accounts, the performance is lower for developed countries and for developing countries there is hardly any performance; for centrally planned economies, these statistics are not available through the MPS questionnaire.

1.   Gross domestic product - net material product

14.   The observation made in paragraph 11 above that only 50 per cent of the countries have "adequately" developed GDP-NMP tables contrasts with an alternative analysis described below which throws a more favourable light on the quality of the data available for this subset. If one ignores the distinction between current and constant price tables and assumes that the more independent GDP-NMP breakdowns there are, the more reliable the data are, as more checks are available on the quality of the data, one can distinguish three groups of countries: one group that compiles all three GDP-NMP classifications by expenditure, activity and cost composition, another group that compiles only two of the three and a third group for which no checks are available because only one breakdown is presented. For all countries together, the first group comprises 78 per cent, the second group 15 per cent and the third group only 7 per cent of the countries. For developed countries with market economies, the percentages are even more favourable (92 per cent, 8 per cent and 0 per cent); for developing countries with market economies, there is more or less the same pattern (77 per cent, 17 per cent and 6 per cent); and for centrally planned economies, there is a less favourable pattern (38 per cent, 15 per cent and 46 per cent).

15.   Another aspect regarding this subset which is hidden behind the rough analysis above concerns the income concepts (GDP, gross national product (GNP) and national income and national disposable income) that are used by countries and are reflected in the SNA table on the relations among national accounting aggregates (SNA 1.12). In the countries with centrally planned economies, only the NMP aggregate is used, so that a distinction between income concepts is not relevant. The upper part of table 3 shows that more than half of the countries compile all four concepts, while a quarter has only GDP and the remaining countries compile GDP and GNP or GDP, GNP and national income only. For developing countries, the pattern is similar; for developed countries, a much higher percentage compiles the four concepts.

Table 3. Income concepts used by countries with market economies

Income concepts	All countries	Developed market economies	Developing market economies
Income concepts used in SNA table 1.12	Percentage of countries		
GDP	28	–	34
GDP, GNP	13	–	16
GDP, GNP, national income	4	4	4
GDP, GNP, national income and national disposable income	55	96	46
Definition of GDP in activity breakdown (SNA 1.10, 1.11)			
Market value (SNA definition)	34	31	34
Market value, including import duties	18	–	22
Factor values	48	69	43

16. The lower part of table 3 refers to different definitions of GDP that are used by countries in the activity breakdown of the aggregate, owing to difficulties of allocating indirect taxes minus subsidies to activities and separating import duties from other indirect taxes. Only a third of all countries with market economies supply correct information for the table that classifies GDP by kind of economic activity, that is, they allocate indirect taxes minus subsidies to the individual activity categories except for import duties. The remaining countries can be divided into two groups. One group, which includes nearly half of the countries, values the activity contribution to GDP in factor values excluding all indirect taxes minus subsidies. This group also includes the countries that do not allocate value-added tax but do assign correctly all other indirect taxes minus subsidies to activity categories. The remaining large group (only developing countries) allocates to activity categories all indirect taxes minus subsidies, including import duties.

2. Institutional sector accounts

17. An adequate set of institutional sector accounts was found to be available for only 8 per cent of the countries. This percentage is very low, but it may be the result of the rather ambitious requirements that are defined for this subset above. If the conditions are relaxed, many more countries have some form of institutional sector accounts. This may be clear from table 4. The rows of the table indicate the institutional sectors or combinations of sectors that are

Table 4. Number of country responses to the institutional sector accounts in the SNA national accounts questionnaire

Institutional sectors	Accounts	Income and outlay	Income and outlay, capital accumulation	Income and outlay, capital accumulation and finance	Production, income and outlay, capital accumulation and finance	Total
External transactions only	– developed	1	0	0		1
	developing	17	2	4		23
General government only	– developed	1		0		1
	developing	4		1		5
External transactions/ General government	– developed	0	4	0		4
	developing	15	4	2		21
General government/ Enterprises/ External transactions	– developed	0	0	0		0
	developing	1	1	2		4
General government/ Households/ External transactions	– developed	7	1			8
	developing	7	2			9
General government/ Enterprises/ Households/ External transactions	– developed	0	0	1		1
	developing	1	2	1		4
General government/ Enterprises: financial/ non-financial Households/External transactions	– developed		2	2	3	7
	developing		2	1	0	3
General government Enterprises: financial/ non-financial Households/non-profit institutions/ External transactions	– developed			2	2	4
	developing			0	0	0
Total	– developed	9	7	5	5	26
	developing	45	13	11	0	69

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covered in the sector accounts, and the columns indicate accounts or combinations of accounts. Each element of the table has two numbers, the first one referring to developed countries with market economies and the second one to developing countries. The number of countries reporting on the accounts or combinations of accounts are shown in the last row and the totals for the sector coverage are in the last column.

18. The 10 developed and 2 developing countries that have "adequate" institutional sector accounts, which cover income and outlay, capital accumulation and capital finance accounts for a minimum number of institutional sector (enterprises, households, government and external transactions) are reflected in table 4 in the last two columns, including all elements below the sixth line. If the requirement were relaxed to only income and outlay and capital accumulation accounts, the number of countries would increase to 12 and 6 respectively. If only the summary income and outlay accounts (SNA 1.4-1.7) were required, the number of countries would increase to 20 and 30 respectively. The latter count includes all countries that do not present either the enterprises (in conformity with previous SNA practice) or the household income and outlay account. These can, however, be derived residually from the other institutional sector accounts.

19. Some other observations can be made on the basis of the information in table 4:

(a) The majority of the developing countries that have some form of institutional sector accounts (49 countries or 71 per cent) have only the external transactions and/or government accounts. For the developed countries, this only applies to 6 countries or 23 per cent. Government and balance-of-payments statistics are presumably the source of these sector accounts. Households and enterprise accounts are generally much less developed because of the lack of separate data sets for these sectors. If these sector accounts are available, information is generally derived indirectly from other sources.

(b) The few countries that have supplied information on the capital finance accounts generally have not reconciled the data with those of the capital accumulation accounts, so that net lending in the two accounts differs.

(c) Only four developed countries have presented separate information on the accounts of private non-profit institutions; no developing country has identified this sector. The separation of these institutions in private final consumption expenditure (SNA 2.5, 2.6) is somewhat better; seven developed and five developing countries have separated this information either as a total or subdivided by type of consumption goods.

(d) The production accounts for institutional sectors are compiled by only five developed countries. However, owing to the difficulties of separating unincorporated government and private enterprises from quasi-corporate and corporate enterprises, there is very little comparability between the solutions introduced by the five countries. In some cases, production accounts for enterprises and households are lacking; in other cases, the production account for enterprises covers corporate, quasi-corporate and unincorporated enterprises so

that a production account for households is missing. In one instance, production accounts for private non-profit institutions have been separated out without, however, identifying the unincorporated enterprises to be included in the household sector.

20. A final observation that should be made in this context is the considerable discrepancy between the coverage of the external transactions account and the coverage of the IMF balance-of-payments statistics. The latter includes, according to the information presented in table 1 above, 113 countries of which 25 have developed market economies, 87 developing market economies and 1 centrally planned economy. The number of countries having some form of external transaction accounts in the SNA national accounts questionnaire (the MPS questionnaire does not include any external transaction accounts) is 89, of which 25 are developed and 64 developing countries. However, the balance-of-payments statistics cover a complete set of accounts, including transactions that refer to the current, capital accumulation and capital finance accounts. Compared with these accounts, the number of countries reporting a complete transactions account in the SNA questionnaire is much lower, namely 10 developed and 10 developing countries.

3. Government accounts and tables

21. An analysis is presented in table 5 for the accounts that are available for general government and its subsectors. The layout is similar to that in table 4; in this case, available accounts are presented in the rows and the subsectors in the columns. The following observations can be made on the basis of the information in table 5:

(a) The number of countries with some form of subsectoring in the general government accounts is much larger than the 11 countries that have "adequate" government accounts and tables according to table 2 above. A breakdown of the general government sector data into sub-items for central government and the remaining part of the government sector, or for central government; state, provincial and local government; and social security funds; separately, is available for 20 developed and 26 developing countries (totals of the last three columns of table 5).

(b) The majority of the developing countries (31 out of 48) cover only general government and/or central government without adequate specification of the transactions of state, provincial and local governments and social security funds. On the other hand, the majority (16 out of 22) of the developed countries have a complete breakdown of general government by subsectors. The distinction between state and provincial on the one hand and local government on the other, is followed by only one developed and one developing country, and not even for all accounts.

(c) The accounts coverage is different between developed and developing countries. The majority of the first group (12 out of 22) have production and/or capital finance accounts. These accounts are compiled by only a minority of the developing countries (10 out of 48).

Table 5. Number of country responses to the general government accounts and its subsectors

Accounts	Institutional sectors	General government only	Central government only	General/ central government	General/central state, provincial, local government	General/central/ state, provincial, local government/ social security funds	Total
Income and outlay	– developed	0		0	1	2	3
	developing	12		4	3	2	21
Income and outlay/ Capital accumulation	– developed	2	0		1	4	7
	developing	5	2		6	3	16
Production/ Income and outlay/ Capital accumulation	– developed				0		0
	developing				1		1
Income and outlay/ Capital accumulation Capital finance	– developed	0	0	2	0	4	6
	developing	2	1	3	1	1	8
Income and outlay/ Capital accumulation/ Capital finance/ and/or Production/ and/or Balance sheets	– developed			0		6	6
	developing			2		0	2
Total	– developed	2	0	2	2	16	22
	developing	19	3	9	11	6	48

22.   The poor coverage in the SNA questionnaire of the subset of government
accounts and tables contrasts sharply with the country coverage in the IMF
Government Finance Statistics Yearbook.   The Yearbook includes the data of
117 countries for central government income and expenditure, as shown in table 6.
According to the information in table 5, only 20 countries - less than 20 per cent
of the IMF coverage - provide data on the complete set of income and outlay,
capital accumulation and capital finance account of central government. With
regard to the functional breakdown of all government outlays (SNA 2.3; there is no
separate table in SNA for central government only), the situation is even less
favourable: only 9 countries provide such information through the SNA
questionnaire, and 108 provide data to IMF.   The IMF data on local government are
very limited and can, therefore, not really be compared with those collected
through the SNA questionnaire.

Table 6.   Country coverage in IMF Government Finance Statistics Yearbook

Tabulations	All countries		Developed market economies		Developing market economies		Centrally planned economies	
	No.	%	No.	%	No.	%	No.	%
Central government receipts by economic categories	117	100	26	100	89	100	2	100
Central government expenditures by economic categories	105	90	26	100	78	88	1	50
Central government expenditures by functional categories	108	92	23	88	85	96	1	50
Local government receipts and expenditures	63	54	22	85	39	44	2	100

4.   Input-output statistics

23.   All tables that define the input-output statistics subset are included in the
present SNA national accounts questionnaire and to some extent in the MPS
questionnaire. The only table that is not included is the input-output table
itself, which is the result of merging the data of the use and make matrices on the
basis of additional information or assumptions regarding the treatment of secondary
products. Since this implies that the basic input-output tables are included in
the SNA questionnaire, one should note the wide discrepancy between the
55 countries that have compiled input-output tables since 1970 (see table 1) on the

one hand and the response to the respective tables in the questionnaires on the other. According to the latter, the supply and disposition tables in current prices (SNA 4.9, 4.11; MPS 5a) are only submitted by 8 countries (2 countries provide only the supply table). There is a somewhat better response to the SNA table on the derivation of value added by activity from gross output and intermediate consumption (SNA 4.1 or 4.3), which was submitted by 16 countries. The only tables on which the response conformed well with the number of countries that have input-output tables were the ones that included the activity breakdown of GDP by cost components (SNA 4.5, 4.6; MPS 3). A total of 58 countries responded to these tables. There can be three reasons for the wide discrepancy between national availability and questionnaire response. One is that countries may find it difficult to mould their input-output data into the prescribed classifications and concepts of the SNA questionnaire. Another is that such information generally is not available annually and countries tend only to provide data that can be continued annually. A third reason may be that the data submitted through the questionnaire are supplied by a different agency from the one that compiled the input-output table.

24. The analysis of input-output tables and related data shows that many countries link their traditional input-output presentations with make matrix presentations that explicitly identify secondary production of goods and services, and with additional breakdowns of imports and final demand. Such additional breakdowns may reflect the availability of independent sources of information that provide additional checks and, therefore, contribute to the quality of the input-output data. On the basis of these criteria, the quality of the data is quite good. Table 7 shows that slightly less than half of the countries include cross-classifications of imports by type of goods and services or competitive domestic industries on the one hand and intermediate or final demand categories of destination on the other. Also close to half of the countries include additional make matrices. The same pattern can be detected when comparing the results of the input-output table survey with data on the availability of final demand breakdowns as required in the SNA and MPS questionnaires (SNA 2.5-2.12, 2.17; MPS 6a, 6b, 7a, 7b, 8, 9a, 9b). That analysis shows that of the 55 countries that compile input-output tables, 19 (35 per cent) have available all additional questionnaire breakdowns of final demand. For developed countries, the above percentages are generally higher; for developing countries, the availability of additional breakdowns is generally much lower than 50 per cent. The three countries with centrally planned economies for which input-output tables are available, include the additional breakdowns of imports and final demand and none of them includes the separate make matrices.

Table 7. Number and percentage of countries for which input-output tables are available

	All countries (55)		Developed market economies (22)		Developing market economies (30)		Centrally planned economies (3)	
Tabulations	No.	%	No.	%	No.	%	No.	%
1. Input-output table only	18	33	6	27	12	40		
2. Input-output table, import matrix	12	22	4	18	5	17	3	100
3. Make and use matrix	10	18	4	18	6	20		
4. Make and use matrix, import matrix	5	9	1	5	4	13		
5. Make and use matrix, input-output table	3	5	1	5	2	7		
6. Make and use matrix, input-output table, import matrix	7	13	6	27	1	3		

25.   Less favourable is the situation with regard to the inter-country comparability of input-output tables, as a result of extreme variations between countries in the two characteristics of the tables: size and valuation. The size of the tables varies from 10 to 595 rows and/or columns. If one takes 36 (the sum of the major divisions of ISIC used in part 4 of the SNA questionnaire) as a reasonable size, 19 of the 55 countries have smaller tables, and 36 have larger or much larger tables. With regard to valuation, 24 countries use producers' values, 5 use purchasers' values, 10 use producers' as well as purchasers' values, 11 use approximate basic values in the presentation of the flows of goods and services and 2 use all three modes of valuation.

5.   National wealth statistics

26.   The analysis of the questionnaire response shows a very limited response to the SNA tables that include sectoral balance sheets and classifications of stocks of reproducible fixed assets by type and kind of activity (SNA 2.13-2.16; 3.15, 3.25, 3.35, 3.45). Sectoral balance sheets were submitted by only three developed countries, and information on stocks of reproducible fixed assets by four developed

countries. The two types of information were integrated by only one country. The remaining countries did not include the data on stocks of reproducible fixed assets in their sectoral balance sheets. Those sectoral balance sheets dealt exclusively with financial assets. In other words, only financial assets and liabilities were classified by institutional sector, and reproducible fixed assets and net worth (which includes other tangible and intangible non-financial assets) were presented only for the economy as a whole.

27. Another point to be noted is the difference between the response to the SNA questionnaire tables that form part of the national wealth and balance sheet subset, as defined above, and the results of the survey of national wealth data that are summarized in table 8. In comparison with the 4 developed countries that supplied data on reproducible fixed assets through the SNA questionnaire, there were 25 countries (14 developed, 4 developing and 7 with centrally planned economies) that, according to the survey, have national wealth data that cover all sectors of the economy and include at least reproducible fixed assets, if not other types of assets. Reasons similar to those for input-output tables may explain the lack of response through the national accounts questionnaires (see para. 23 above).

28. Although the availability of national wealth data is much greater than reflected in the questionnaires, there is limited uniformity with regard to the types of assets included, sectors or activities covered, modes of estimation or statistical sources used (see table 8). Of the 64 countries that were found to have information on national wealth, the estimates of 25 encompass the entire economy, the remaining estimates either refer to enterprises, households, the public sector or specific industries. As far as asset coverage is concerned, all countries included at least fixed assets, 41 also included inventories, 8 included consumer durables, 16 included land, 2 included subsoil, 2 included non-financial intangible assets and 13 included net financial claims on non-residents. Finally, there are differences in the statistical sources and methods of estimation. Of the 64 countries, 18 use the direct and complete inventory method used in economic and industrial censuses, 15 countries use sample surveys such as industrial surveys and inquiries, 16 countries use the perpetual inventory method to estimate capital stock, 8 use the annual balance of replacement or book value; for 7 countries, there are mixed estimation methods or the method cannot be identified.

6. Income distribution statistics

29. The income distribution statistics now available focus generally on income only and do not include the classifications of consumption and accumulation of households, nor the presentation of the transactions in the form of accounts for socio-economic groups of households, as suggested in the SNA national accounts questionnaire. Within this limited orientation, there is still a wide variety in country practices, as reflected in table 9. In that table, four aspects have been emphasized: the statistical sources used, the income unit, the income concept and the type of tabulations used in the compilation and presentation of the data.

Table 8. Number and percentage of countries for which national
wealth statistics are available (in current and/or
constant prices)

	All countries		Developed market economies		Developing market economies		Centrally planned economies	
	No.	%	No.	%	No.	%	No.	%
	(64)		(22)		(34)		(8)	
1. Reproducible fixed assets, inventories, land								
(a) All sectors of economy	16	25	7	32	3	9	6	75
(b) Selected sectors and/or activities	38	59	7	32	30	88	1	13
2. Reproducible fixed assets, inventories, land and other tangible and intangible assets								
(a) All sections of economy	9	14	7	32	1	3	1	13
(b) Selected sectors and/or activities	1	2	1	5	0	0	0	0

Table 9. Number and percentage of countries for which
income distribution statistics are available

		All countries (60)		Developed market economies (21)		Developing market economies (33)		Centrally planned economies (6)	
		No.	%	No.	%	No.	%	No.	%
1.	**Type of source used**								
(a)	Sample survey	51	85	12	57	33	100	6	100
(b)	Taxation data	6	10	6	29	–	–	–	–
(c)	Combination	3	5	3	14	–	–	–	–
2.	**Income unit used**								
(a)	Household or family	41	68	12	57	24	73	5	83
(b)	Both (a) and individual or income recipient	13	22	3	14	9	27	1	17
(c)	Tax unit only	4	7	4	19	–	–	–	–
(d)	Tax unit and other(s)	2	3	2	10	–	–	–	–
3.	**Income concept used**								
(a)	Total household income	36	60	9	43	25	76	2	33
(b)	Total available household income	11	18	5	24	3	9	3	50
(c)	Taxable income	6	10	6	29	–	–	–	–
(d)	Other and not known	7	12	1	5	5	15	1	17
4.	**Tabulation system**								
(a)	Income units by income size groups	29	48	6	29	19	58	4	67
(b)	Income by fractile groups of income units	5	8	2	20	3	9	–	–
(c)	Both (a) and (b)	25	42	13	61	11	33	1	17
(d)	Unknown	1	2	–	–	–	–	1	17

30.   Table 9 shows that 60 countries have available some income distribution statistics. Among these are 21 developed countries, 33 developing countries and 6 countries with centrally planned economies. A small number of countries, 6, base their statistics on taxation data only, while the overwhelming majority use various kinds of household surveys such as family budget surveys, income and expenditure surveys and general household surveys. Three countries combine data from two or more sources (taxation statistics, survey data and administrative data) to estimate their income distribution.

31.   With respect to the income concepts recommended in the provisional guidelines, most countries (36) use the one that is closest to "total household income" (that is, gross of direct taxes paid and social security and pension fund contributions). Eleven countries employ concepts that are closer to "total available household income". Of the remaining countries, two use both of the above concepts and the others use either quite different concepts, such as primary income, or have not defined their concept in detail. Within these groups there are, however, many variations. More than half of the countries exclude imputed rents of owner-occupied dwellings. Income in kind is excluded in several cases; this is particularly serious in developing countries. Some countries exclude entrepreneurial income and others exclude property income. Among the countries that use taxation statistics, the income concept is often not well defined since it depends on detailed national tax regulations. With regard to the coverage of geographical areas on population groups, there are also variations. Some countries cover only urban, others only rural areas. Certain surveys are restricted to wage earners in the economically active population only; other surveys focus on particular groups of the population such as small-farm holders. The institutional household population is generally excluded. In a few cases, one-person households are excluded.

32.   The income unit used differs among countries. Most countries (41) use either the household concept or the family concept. An additional 13 countries use one of these in combination with individual or income recipient concepts. Among the countries that base their statistics on taxation data, taxation units are often used.

33.   An important reason for the lack of comparability among countries is the difference in the tabulations that are published on the basis of the basic data. This matter is complicated owing to the vast number of possibilities that are available. This is true even if data are available for only a limited number of variables as, for example, the number of individuals in each household and the total household income. In this case, the number of households and of individuals can be presented by size groups of total household income as well as by size groups of per capita total household income. Fractile groups of households can be constructed by ranking them either by total household income or by per capita total household income. In both cases, average total household income, per capita total household income and the aggregate of total household income can be presented for each fractile. Finally, fractiles can be constructed of individuals ranked either by total household income or by per capita total household income. The presentation can be the same as that for fractiles of households. If, in addition, information is available on total available household income, final consumption

expenditure and number of income earners, the number of possible tabulations increases considerably. As indicated above, the presentation of the data may not be comparable among countries, even if the basic characteristics of the data are. It seems, therefore, that this is an area where standardization could be introduced. An important consideration should be to tabulate the data in such a manner that a maximum number of analytically useful presentations can be derived. It should also be kept in mind that tabulations using national currencies, although valuable for national purposes, are less useful for international comparisons than fractile distributions.

34. Although few countries have done it so far, it is highly desirable that the income distribution statistics be reconciled with the national accounts statistics. For this purpose, it is important that the household sector accounts be developed within the national accounts, particularly tables 3.32 and 3.33 of the SNA questionnaire. Since these accounts are generally derived indirectly from information on transactions of the government and external sector and some additional data on transactions between enterprises and the household sector, a useful check can be made only if complete institutional sector accounts are available. The survey of income distribution data and the responses to the national accounts questionnaire provide some insight into this aspect. It appears that of the 29 countries that have "adequate" income distribution data (see table 2 above), only 7 developed countries have "adequately" developed institutional sector accounts. There is no developing country that has available this combination of subsets (for countries with centrally planned economies, no institutional sector accounts are available through the MPS questionnaire).

II. CONCLUSIONS AND RECOMMENDATIONS WITH REGARD TO THE IMPROVEMENT, EXTENSION AND HARMONIZATION OF AVAILABLE DATA

35. On the basis of the above findings, it is possible to define in a more concrete and more detailed manner the Statistical Office long-term programme for the improvement of the quality and coverage of the present national accounting series (see para. 1 above). This programme is planned to be carried out within existing resources applied to this area of work or, if necessary, through redeployment from other areas of Statistical Office work. The components of the programme are discussed below.

36. The surveys of country practices have shown a wide discrepancy between the data submitted through the SNA and MPS national accounts questionnaires and the data available in national and international publications. An important reason why the latter data are not channelled through the questionnaires is that they are not integrated with the national acounts. However, even if not reconciled with the basic GDP-NMP national accounting subset, the data are still useful for analysis, including comparative global analysis. International compilation of such data should, therefore, be pursued for the time being on the basis of surveys of national publications and alternative international data sets. However, as the data are not necessarily integrated with the national accounts, there is a need to present them separately. In line with this, the Statistical Office plans to develop separate national accounts publications for each of the national accounting

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subsets defined above. This implies that the present Yearbook of National Accounts Statistics will gradually be restricted to the GDP-NMP subset. Data that belong to other subsets and that are now included in the Yearbook will be transferred to other national accounting publications and combined with data that have been compiled from national publications or by converting data collected by IMF and other international organizations into categories that are recommended in SNA or MPS. Such publications will be issued annually for subsets such as institutional sector accounts and government accounts and tables and quinquennially for the subsets of input-output tables, national wealth statistics and income distribution statistics. Non-comparability between the data of the same subset or publication, between data of different countries or between the data of the subset and those of the basic GDP-NMP national accounting subset will either be reconciled or presented explicitly. On the basis of explicit presentations, countries will be asked to assist in the elimination of non-comparability in the long run, and/or the international guidelines may be adjusted to reflect more accurately the national or alternative international practices. It is hoped that this process will lead to integrated conceptual and data development and will be a stimulus to national standardization and improvement of data.

37. It seems that there is a wider discrepancy between data availability with regard to the basic national accounting GDP-NMP subset and the responses through the SNA and MPS questionnaires for developing countries and countries with centrally planned economies than for developed countries with market economies. This conclusion is based on the observation that many countries of the first two groups compile such complex data sets as input-output tables, income distribution statistics and national wealth statistics, while the development of their basic national accounting framework lags behind. It seems important, therefore, that the Statistical Office supplement the responses to the national accounts questionnaires for these countries with direct surveys of their basic national accounts data included in national publications in order to arrive at better coverage, which can then be continued by the countries themselves in the future. With regard to the MPS questionnaire, it should be noted that many of the developments that have shaped the latest version of the SNA questionnaire have not been taken into account in the MPS questionnaire, which has remained unchanged since the conceptual MPS guidelines were introduced in 1970. The possibility of revising the MPS questionnaire will, therefore, be examined, also with a view to improving the response of countries with centrally planned economies.

38. A wide discrepancy exists between the country coverage of tables based on the SNA questionnaire and similar IMF compilations of government finance statistics and balance-of-payments statistics and other supplementary data compilations by international organizations on the basis of prescribed concepts and classifications. To make use of the considerable amount of supplementary standardized data in the improvement of the national accounts and in order to avoid duplication of international compilation efforts, it is important to emphasize not only the conceptual reconciliation between alternative guidelines, but also the reconciliation of the data between such supplementary systems and the national accounts. In fact, the data reconcilation should be parallel to the conceptual reconciliation in order to identify the quantitatively significant causes of discrepancies.

39. The Statistical Office and IMF, in close co-operation, have advanced somewhat in the direction of quantitative reconciliation of central government statistics. The results of this exercise have been published in the 1981 Statistical Yearbook in the chapter on government sector statistics. In that chapter, IMF government finance statistics (GFS) are presented in approximate SNA categories on the basis of the earlier defined bridge table between the concepts of SNA and GFS. Given the lack of detail required in the bridge table with regard to IMF statistics, an approximate bridge table was defined which allocated the available IMF categories of revenues and expenditures to those aggregate SNA categories to which they predominantly belong. These series will be continued on the basis of the IMF compilations and their approximate character will gradually be reduced, and the coverage will be extended to general government as a whole when IMF introduces further detail into the questionnaire and proceeds with its plans to include local government as well.

40. This is the first phase in the reconciliation effort. For the second phase, a detailed comparison between SNA and GFS data on the government sector is envisaged in order to determine the most important quantitative differences between the two systems. This reconciliation, which would require further close co-operation between IMF and the Statistical Office as well as the collaboration of a few countries for which detailed case studies will be made, would follow the same approach as is employed in the project linking SNA and the System of Balances of the National Economy (MPS). Once the major quantitative differences have been identified, a group of countries that has "adequate" subsector accounts will be requested to provide additional data on the important factors of difference and thus arrive at a link between the two systems. If one defines "adequate" government subsector accounts as those that cover at least the central government sector and include income and outlay and capital accumulation and finance accounts, a study of this type may cover, according to the information in table 5 above, 12 developed countries and 8 developing countries. The results of the study would be the basis for the first issue of a government sector statistics yearbook, which would be one of the national accounting data publications referred to in paragraph 36 above.

41. A similar strategy will be pursued with regard to the subsets of income distribution, national wealth and balance-sheet statistics and input-output tables. In all three cases, the analysis given in paragraphs 23-34 above has shown a wide discrepancy between the data available through the SNA and MPS questionnaires and the data available in national publications. Conceptual guidelines have been developed in each of the three areas and they are integrated with those of SNA. Data development generally does not coincide with the recommended standards and apparently - given the limited response to these tables of the SNA questionnaire - countries find it difficult to adjust those data to the concepts and classifications of the questionnaires. Given the considerable data development in each of the areas, the Statistical Office intends to try to improve standardization. As a first step, which has already been taken by the Statistical Office, national practices in input-output tables as well as in income distribution statistics have been studied and instances of non-comparability have been identified. International data series will later be compiled in a format which is approximately in conformity with the international guidelines. In the series,

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non-comparability and lack of conformity with the international guidelines will be made explicit. Furthermore, the data presentations will be accompanied by extensive descriptions of the concepts and classifications used by each country, as well as the statistical sources and compilation methodology applied. For each of the three national accounting fields, the results of such data surveys will be published and will constitute the beginning of international data series that intend to be issued every five years. It is hoped that, in co-operation with the countries concerned, further standardization can be achieved in the national compilations during the intervening years.

Notes

1/ United Nations publication, Sales No. E.69.XVII.3.

2/ United Nations publication, Sales No. E.71.XVII.10.

3/ National Accounting Practices in Seventy Countries (United Nations publication, Sales No. E.79.XVII.19, vols. I, II and III).

4/ A Survey of National Sources of Income Distribution Statistics (United Nations publication, Sales No. E.81.XVII.7).

5/ United Nations publication, Sales No. E.80.XVII.11, vol. II; see the notes to tables 6A and 6B.

6/ Provisional Guidelines on Statistics of the Distribution of Income, Consumption and Accumulation of Households (United Nations publication, Sales No. E.77.XVII.11 and Corr.1).