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# PROGRESS IN IMPLEMENTING THE 1993 SYSTEM OF NATIONAL ACCOUNTS (SNA 1993) IN LATIN AMERICA AND THE CARIBBEAN 1998-1999

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#### INTRODUCTION

This report has been produced on the basis of data compiled from the surveys of progress in implementing the 1993 System of National Accounts that were conducted in the countries of the region during 1998 and 1999, and of additional information conveyed to ECLAC by certain countries during the course of 1999. Account has also been taken of information collected at the regional meetings held over the last two years in Brazil and Mexico. The dates originally announced by the countries for delivering results have been revised, as a number of them have since found the process of implementing their new base years to be more difficult than anticipated.

In 1997, conscious of the complexity of the task, ECLAC designed a new form for collecting information on the progress made by each country in the region. This questionnaire is the product of the experience gained by using previous versions, of suggestions received directly from the countries and of the pilot test to which it was subjected in 1998.

The purpose of the new form is not only to record significant developments and list the accounts that are being implemented, but also to look more thoroughly at aspects relating to the methodological schemes applied by each country and the main characteristics of the statistical bases with which the bodies compiling the data are working. The intention is also to ascertain the main difficulties met with by the countries, and the solutions found.

In 1998, this questionnaire was sent out only to those countries that had progressed far enough by September of that year to be able to respond to the new questions included. In 1999, it was sent to all the countries, to be completed if major changes had taken place in respect of the progress already reported in 1998. Six countries responded.

In preparing this report, the contents of the economic surveys available were also reviewed, as were those of the household surveys closest to the base year decided upon by the countries. This was done as a first step in evaluating the statistical base available to each country, since the 1993 SNA requires more intensive use of all the basic information available. Table 6 in the Annex gives the reference years for the industrial and household surveys available.

This report, like the previous ones, also reviews the areas of the 1993 SNA being worked on and provides, as far as possible, a description of the tables and accounts currently being compiled by the countries of Latin America and the Caribbean under their implementation programmes.

The technical assistance needs made known by the countries of the area have also been updated, since it is indispensable for these to be dealt with if results are to be achieved in progressing with implementation of the 1993 SNA within the time limits set. Table 7 in the Annex provides information on the needs expressed by the countries, and the degree of urgency involved.

Lastly, information is also provided about the efforts of some countries to carry out studies that complement the central framework of the 1993 SNA, enabling them to show substantial progress in compiling a variety of satellite and regional accounts. This methodological approach has yielded concrete results with satellite tourism accounts and regional accounts, and significant progress has been made with environmental accounts and satellite health and education accounts.

#### 1. Progress and results during 1998 and 1999

Of all the countries in Latin America and the Caribbean, 22 have gone ahead with their 1993 SNA implementation projects. Of these, 11 had chosen 1999 or an earlier year as the deadline for their work, five had planned to finish in 2000 or later (see Table 1 in the Annex) and the other six have no completion date planned.

At the time this report was being drafted (December 1999), most of these countries had not succeeded in completing their assessments during 1999 and the publication of results had been postponed to 2000. Bolivia, Colombia and Mexico have already published goods and services accounts and their sets of institutional sector accounts, including those for financial transactions. In all cases, balance sheets have been excluded. Argentina and Brazil have published the results of their revised goods and services accounts, although in the case of the former, as expected, the intermediate use matrix was not completed. This will be done during the current year, along with other matrices also relating to 1997 (see Table 1 in the Annex).

In the Workshop on regional accounts implementation under the 1993 SNA recommendations, held in Aguascalientes, Mexico, from 8 to 11 November 1999, an analysis was carried out, at the suggestion of the United Nations Statistics Division, to determine what criteria should be used to assess whether a country was applying the 1993 SNA. A variety of suggestions were put forward, culminating in a consensus view that was summed up as follows in the final report of this workshop:

"Following discussion of the issue, certain participants put forward a variety of recommendations for determining whether a country is applying the 1993 SNA. These are:

- To analyse the way the base year for calculations is being produced;
- To take account of when figures refer to more than one period;
- To consider the characteristics of the basic statistics from which calculations are being carried out;
- To evaluate the way the implementation process has been designed;
- To be reasonably flexible when considering the efforts countries make;
- To consider the possibility of designing a chart which correlates the different elements that need to be taken into account to determine whether the 1993 SNA is being applied;
- To base analyses solely on the figures published officially by the country."

These recommendations were summarized in the following consensus opinion:

"A country should be deemed to be implementing the 1993 System of National Accounts once it has produced official figures that take account of its main concepts, definitions, classifications and guidelines in more than one period."

This opinion confirms the criteria that ECLAC has been applying to determine which countries in the area have been producing their calculations in accordance with the 1993 SNA.

#### a) Classifiers

Most of the countries have focused much of their effort on updating their goods and services production and supply and use accounts. Implementation of the 1993 SNA has provided a good opportunity for the countries to update the classifiers they use, a task which they can make easier by taking advantage of a recent international proposal like the Central Product Classification (CPC). Something similar happened with the International Standard Industrial Classification of all Economic Activities (ISIC Rev. 3), used as the basis for defining the coverage of activities and production limits. As indicated in previous reports, most of the countries have adapted international proposals to their individual circumstances, a process whose salient features are the definition of specific subdivisions relating to particular industrial and services development specialities in each country. Table 2 in the Annex shows which of these classifiers have been applied by the countries.

One of the fundamental differences between the 1993 SNA and its predecessor is the definition of the statistical unit of observation, which centres on business units, whether constituted into independent legal entities or otherwise. This creates a much closer link between the compilation of accrued flows and amounts (stocks) in respect of the goods stream and of the accounts of institutional agents. By way of example, there needs to be an appreciation of capital formation from the point of view of investment goods and services and of the destination of investment by institutional agent, owing to the implications this has for other accounts, such as financial ones.

The new guidelines stipulate that cross-classification tables should be produced between activities and institutional sectors, to ensure proper compilation of the basic information required for all the accounts and tables of the 1993 SNA. This aspect takes on particular importance at the point where the countries in the area have to devise programmes to update their basic statistics, as the task unquestionably becomes more complex and onerous when account is taken of the need to redefine the unit of observation that has been worked with in most censuses, surveys and administrative records, and to coordinate a larger number of public and private institutions that compile information about business and establishments, which requires resources many times greater than those they are actually in a position to obtain.

The consultations carried out by ECLAC regarding the progress made in applying the new 1993 SNA have revealed how far behind the region is when it comes to compiling methodical, ongoing information on its institutional sectors. Although their programmes for producing their new base years provide, in many cases, for a special effort to compile a significant quantity of accounting, tax or stock market information by institutional sector, especially for non-financial corporations, the results actually achieved are still very meagre.

In this area, again, it is found that many producers of basic statistics, who are generally scattered around different institutions, have very limited knowledge of the different classifiers available for the codification and standardization of this type of information. In the region, this problem suggests that it would be advisable for the bodies compiling national accounts to introduce internal policies designed to raise awareness of the need for the offices producing basic statistics and administrative records to use the classifiers required by national accounts offices when organizing this information. This would open the way for their use on a large scale

and for the application of more efficient information technologies for collecting and processing basic data.

For the goods and services accounts being compiled, two reference classifiers should be applied, ISIC Rev. 3 and CPC. In most of the countries providing information on the levels to which activities and products are broken down, a marked imbalance can be seen in the detail collected for statistical records on goods and for those on services. While accounts and tables for goods supply and use are compiled to four or five digits of ISIC or CPC, in most cases those for services are only taken to one or two digits (see Tables 2 and 3 in the Annex).

As regards the use of the classifiers needed to produce accounts by institutional sector, and to the extent that the countries have begun their work of collecting the basic statistics required for this set of accounts, we are beginning to see the emergence of problems such as a high degree of aggregation in the data available and marked differences of coverage between periods. Furthermore, information on the private sector normally has low coverage in terms of the number of firms. In general, figures from public-sector corporations are detailed, as can be appreciated in the cases of Brazil, Chile, Ecuador and Venezuela. As regards non-financial private corporations making up part of the institutional sector, there is the experience of Chile, Ecuador and Venezuela, whose work with this sector deals only with those firms whose financial and accounting details are easily accessible.

Hitherto, only a few countries have set out to include financial or fund flow accounts, which is why the consultations carried out have not yielded any comments about the application of the financial assets and liabilities classification proposed in the Manual. For the time being, Chile, Colombia, Ecuador and Mexico are presenting financial transactions without reconciling them with the real economy. The same holds true for balance sheets, preparation of which is not currently treated as a short-term objective in any of the countries in the region.

#### b) Progress in drawing up 1993 SNA accounts

#### i) Production accounts and supply and use matrices

In this respect, the countries are at a more advanced stage in the implementation of their working programmes, since as part of the work involved in calculating the base year most of them are endeavouring to compile information by product and by kind of economic activity with a view to structuring these accounts and the corresponding supply and use tables, with breakdowns of intermediate demand (see Table 3 in the Annex).

A number of countries in the area now have these tables, only a few of which, however, coincide with the new base year and can thus be used as references for it. Others have been produced subsequent to the base year, this being the case with those of Bolivia, Brazil, Colombia and the Dominican Republic. Another group of countries has opted to carry out new input-output studies, as those available are nowhere near the year decided upon as the new basis for calculations. This is true of Argentina and Chile, which have tables for 1984 and 1986, respectively. Other countries, meanwhile, while considering producing production and absorption matrices as part of their 1993 SNA implementation programmes (Costa Rica, Ecuador, Guatemala, Honduras, Panama and Paraguay), have not notified any progress in this respect.

As for determining the supply of inputs, as Table 3 in the Annex shows, only a few countries state that they will be producing separate tables for intermediate use of domestically-

produced and imported goods and services, and that they will be introducing the same distinction when they structure their final demand tables.

Of the five countries that submit their official national accounts figures in a way that is compatible with the 1993 SNA, Bolivia, Brazil and Colombia provide their data in the recommended formats, including the relevant production, absorption and value-added matrices. Although they publish series that conform to the new guidelines, however, none of them has succeeded in setting forth all the transactions making up each of the accounts to the level of detail stipulated by the international recommendation. Bolivia does not calculate mixed income, and the allocation of fixed capital consumption is not recorded in any of the countries mentioned. Only Brazil records its national accounts at current and previous year prices, while the other countries are still compiling them at current prices and constant prices with a fixed base. Argentina and Mexico do not break down intermediate demand and production by products and activities. The former includes mixed income in the accounts for production by kind of activity, and also calculates waged and unwaged employment (see Table 5 in the Annex).

As can be seen in Table 4 of the Annex, these countries generally do not incorporate valuables into final demand and some of them have difficulty in showing the individual consumption of the Government.

All the countries whose reports indicate that they are producing supply and use matrices also intend to prepare value-added tables, although in some cases these might not include all the relevant items. The most common exclusions are the identification of mixed income and the calculation of allocations for fixed capital consumption. Table 5 in the Annex is quite revealing in this respect.

#### ii) Institutional sector accounts

The emphasis that the 1993 SNA places on presenting a totally integrated system of accounts has thrown the problems with the region's existing systems of basic statistics into sharper relief. The imbalances in the way these have been developed, with resources being concentrated on the production of economic surveys aimed basically at goods producers, make it extremely difficult to move towards statistical systems in which the corporation is the focus of attention.

The way for the countries of the region to modernize the systems of basic statistics used by the vast majority of them is to change their approach as regards the unit of observation and to produce the necessary company directories, which should contain information on the establishments that each company possesses throughout the country. Such a transition is not without difficulties, mainly because producing directories, designing forms that business can use to carry on collecting production and cost data for each of their establishments and applying modern information processing technologies cannot be done without organizing a large-scale programme in which a number of institutions normally have to participate and which, furthermore, requires technical and financial resources that are far from negligible.

In implementing the 1993 SNA in the region, the most difficult task is unquestionably the compilation of accounts for institutional sectors, non-financial corporations and households. The difficulty is particularly acute when it comes to delimiting in practice the units that will be included in each of these institutional sectors and to establishing the cross-classification of

kind of activity and institutional sectors that is necessary for an integrated system of accounts to be produced.

To structure institutional accounts on the basis of goods and services production accounts and supply and use accounts produced using the more traditional approach that looks at kind of activity, a number of countries in the region need to reconsider the way they treat non-financial corporations and find a way of allocating the operating surplus between households and non-financial corporations in a way that does not overstate the allocation of primary income, since otherwise all the other balancing items become distorted.

The 1993 SNA introduces the concept of mixed income, a new primary income category which covers payment for work and business management in units whose legal status makes it impossible to differentiate them. As is well known, this analytical category is valid for calculating accounts by kind of activity and by institutional sector, and for this reason a number of countries (Argentina, Brazil, Chile and Colombia) are giving priority to the production of employment matrices that introduce greater economic consistency into the measurement of primary income and enable transactions recorded in the accounts by establishment and by institutional sector to be fully integrated.

This exercise is particularly difficult for those countries that have not considered identifying mixed income in their supply and use matrices, even more so when the number of corporations included in the base of accounting and financial information is relatively small in relation to total estimated output for all non-financial corporations.

In cases where the production of accounts for all institutional agents is complicated by major gaps in the basic information, in particular that on households and private non-financial corporations, to avoid or delay dealing with the problems involved in allocating income the countries are adopting "temporary solutions" that consist in integrating all agents for which no adequate accounting records are available into a single account. Colombia and Mexico have presented their estimates using different formulas to resolve the problem of quantifying mixed income. Colombia is introducing the distinction into the entire set of accounts, relying on absorption and value-added matrices that calculate mixed income in its goods and services accounts, which it then incorporates into its accounts for institutional agents. With this object, it has also created employment matrices that record both waged and unwaged work. Mexico, meanwhile, incorporates the distinction of mixed income only into its institutional accounts, and calculates waged employment purely by way of information, to supplement the accounts for primary allocation of income from activities.

When the 1993 SNA was approved, the countries that were then applying the 1968 SNA in its entirety were in a position to adopt the new system rapidly. Three of them, Ecuador, Peru and Venezuela, despite having participated in the implementation of this system right from the beginning, are still not publishing their official estimates arrived at under the new guidelines.

Generally speaking, the countries in the area are giving priority to the production of integrated government and financial sector accounts, as these are less difficult to compile. Furthermore, preparing the sequence of accounts until accrual accounts are arrived at is one of the objectives of all the countries. The production of financial accounts, for which it is necessary to have more information on the consolidated financial system, only features among the aims of those that, according to their declarations, have adequate systems for collecting financial and monetary statistics.

As has already been mentioned, a lack of the detailed information needed to calculate the full set of accounts by institutional sector in accordance with the 1993 SNA means that the most common solution used by the countries of the region is to merge non-financial corporations with production units that do not have company status, or with households, a situation that is unquestionably contrary to the spirit of the new system.

A number of countries concentrate on producing detailed accounts for public-sector corporations, as it is easier to compile economic and accounting information for these, and leave a large swathe of private non-financial corporations and households and private non-profit institutions as a complement. Bolivia and Brazil have opted for solutions of this type, which keep them on course for the target of achieving full implementation of the 1993 SNA in a gradual way.

Other countries (Chile, Ecuador and Venezuela) are endeavouring to expand the coverage of their statistics on private non-financial corporations. To do this they are applying indirect assessment methods in respect of those items for which no better information is available, with the objective of separating households from non-financial corporations. According to information provided at the Regional Seminar on National Accounts held in Buenos Aires, in 1997 Chile began to construct an accounting and financial base to complement its economic surveys. Ecuador is working with the administrative records of firms that are large taxpayers, and Venezuela has identified a set of leading corporations in respect of which it is carrying out a special information compilation exercise.

In general, the countries of the region that are facing up to the task of compiling integrated accounts for significant numbers of non-financial corporations over a series of years are finding that they are having to produce and apply strategies to transform the company accounting records available into the transactions defined by the 1993 SNA. In fact, numerous applications have been submitted for technical assistance in this area. Stress is also laid on the advisability of having a practical manual that contains the most usual guidelines relating to this issue, without leaving out of account the additional difficulties faced by those countries whose business accounting systems include inflation adjustment items.

Balance sheets are not named as a priority objective in the 1993 SNA implementation programmes of the countries in the region. This is a consequence of current statistical limitations, inadequate systems for presenting the flow accounts available to calculate a variety of components for institutional sectors, and the fact that in most of the countries no valuation of government assets exists.

#### c) Satellite accounts

Only a relatively small number of countries have implemented accounting systems that complement the central framework of the 1993 SNA. Some examples that can be cited are initiatives relating to tourism and sectors of high social interest. These include the pioneering work of the Dominican Republic in producing satellite accounts for the tourism sector, which were published in 1996, and the progress the country has recently made in preparing a satellite account for the education sector, progress in developing environmental accounts and the recent presentation of satellite accounts for the tourism sector in Chile and Mexico, the preparation of regional accounts in Brazil and progress with the production of satellite accounts for the health and education sectors in Peru.

It needs to be stressed that a number of these pioneering national efforts have been or are being made by bodies other than those that produce the central framework of the 1993 SNA. This situation, while in one way it is encouraging, also introduces an element of uncertainty as regards the continuity over time of the calculations made, their official validity and their consistency with the calculations of the central framework. In Chile, for example, it was the National Tourism Service that compiled and published the study, with methodological support from the Central Bank of Chile. In Peru, the satellite account for the health sector is being produced at the Ministry of Public Health.

#### 2. Basic statistics

The guidelines proposed in the 1993 SNA for establishing the necessary inter-relationship between accounts by kind of activity and by institutional sector constitute a new paradigm for national statistical systems, as it will be necessary to redesign the methods used to compile information from production units, without losing sight of the information coming out of business or management units.

In this context, the objectives of production accounts by kind of activity and of goods and services supply and use matrices necessitate the production of economic surveys that are more and more complete in their contents and comprehensive in their coverage. This is manifest in those countries (such as Guatemala and Venezuela, for example) where programmes have been devised to strengthen economic survey systems in all their stages as a prerequisite for the production of such accounts and matrices. In Table 1 in the Annex it will be seen that most of the countries believe it to be necessary to supplement implementation of the 1993 SNA with a major effort to optimize and better coordinate their basic statistics.

Another important goal that a number of countries have set themselves is to find a good way of measuring household consumption, with detail on goods purchasing that is compatible with the breakdown established for intermediate production and demand.

As regards the instruments used to collect basic statistics for this process, it should be pointed out that a large number of countries carry out economic surveys of industries using reference periods very close to the year set as the base. As regards data for establishing the details of household goods and services consumption, the basic information is mainly found in household surveys, which are also used to determine baskets of goods for the periodic production of consumer price indices. Table 6 in the Annex gives more detailed information on this particular.

Accounts for production by kind of activity and goods and services accounts for goods-producing sectors are processed to a higher level of breakdown than those for service-producing sectors, which makes it even more difficult to establish the scale of invisible trade flows to the same level of detail as is calculated for goods flows. Another aspect that impedes better coverage of these flows is the fact that the economic agents offering these services tend to be highly dispersed and the information collected on them is usually deficient or inadequate, quite apart from the fact that each of them may offer a variety of services. This latter aspect is particularly important when it comes to determining the value added by services kind, as there are far more secondary production alternatives in the case of these than in the case of goods producers.

#### 3. Summary of the current situation by country

#### a) Review of progress by country

This section provides a highly condensed summary of the current situation in the countries for which information is available either for 1998 or for 1999.

#### i) Countries that have published results

- 1. Argentina: work has been focused on goods and services accounts, with 1993 being set as the new base year, and on a new input-output matrix for 1997, to enable an intermediate use table to be produced; this is expected to be completed by 2000. The results for the series with 1993 as the base year have been published, including the period 1993-1998, which includes production accounts by kind of activity, an intermediate demand vector and a final demand matrix, at current and constant 1993 prices. The respective value-added matrix calculates compensation of employees, mixed income, indirect taxes net of subsidies and gross operating surplus. Employment tables are given for waged and unwaged work. As regards institutional accounts, progress is being made with the government and financial sector ones. For non-financial corporations and households, the work is still at the stage of collecting background information.
- 2. Bolivia: has published its series of national accounts for the period 1988-1998. This includes complete tables of goods and services accounts: matrices for production, intermediate absorption by kind of activity and final demand at current and constant prices, supplemented by the matrix for value added at current prices, but without calculating mixed income. As regards institutional accounts, private non-financial corporations and households are grouped and accounts for public-sector non-financial corporations are given separately. The full sequence of accounts has been produced, but without the inclusion of financial accounts and balance sheets.
- 3. Brazil: has been publishing goods and services accounts since 1997. The country calculates mixed income by kind of activity and supplements the matrix of value added by components with a table of waged and unwaged work. It does not compile information on the allocation of fixed capital consumption by kind of activity. Results running from 1990 to 1998 have been published. As regards institutional accounts, work for the period 1995-1998 is being completed and the results will be published in the first half of 2000. Integrated accounts will be published for the non-financial corporations, financial corporations, government and household sectors, including private non-profit institutions and sole traders without company status. The full sequence of accounts will be produced, except for financial accounts and balances sheets.
- 4. Colombia: has published its results for 1994, the base year, and 1995. Its goods and services accounts include production, intermediate absorption and final demand matrices, at current and constant prices. The table of absorption at current prices is supplemented, furthermore, by the value-added matrix, which includes mixed income by kind of activity, but only gives the gross operating surplus. Institutional accounts have been produced separately for households, non-profit institutions and non-financial corporations. The set of accounts available does not include those for financial transactions or balance sheets.

**5. Mexico:** has published goods and services accounts and the full sequence of accounts by institutional sector in accordance with the 1993 SNA for the years 1993 to 1997, including financial transactions, but no balance sheets so far. The distinction of mixed income has not been introduced, nor has that of depreciation by kind of activity; as regards employment, only waged work is calculated.

#### ii) Countries in the process of implementing the 1993 SNA

- 6. Antigua and Barbuda: implementation has not begun.
- 7. **Bahamas:** is at a preliminary stage in the production of goods and services accounts in accordance with the 1993 SNA, but at present there are no results that would enable the actual degree of progress to be evaluated.
- 8. Barbados: implementation has not begun.
- **9. Chile:** has fixed upon 1996 as the base year. It is currently in the process of finalizing the supply and use tables, supplemented by specific studies on employment and income from work. The country plans to calculate mixed income both in the goods and services accounts and in those for institutional agents. As regards institutional accounts, the idea is to produce the full system, except for balance sheet accounts. No results are as yet available, but the base year should be ready some time in 2000.
- 10. Costa Rica: work on the goods and services accounts is nearing completion, with intermediate demand being opened to 127 activities and 170 products. No reference is made to the calculation of mixed income. As regards institutional accounts, partial ones will be produced, covering just the Government, the financial sector and a subset of the non-financial sector; the one for households is to be closed as a balance, and should include part of the non-financial corporations sector. There is no cross-classification. The plan was to publish results during 1999.
- 11. Dominican Republic: although it was the first country in the area, in 1996, to complete and submit calculations for the central framework of the 1993 SNA for the period 1991-1994, and although it updates them periodically, no accounts series produced under the new system have yet been published officially. Satellite accounts are available for the tourism sector and another set is being produced for education.
- 12. Ecuador: has achieved its greatest progress with goods and services accounts. Mixed income is not calculated. As regards institutional accounts, the greatest progress has been with those for general government and the financial sector. In the case of non-financial corporations, the coverage of public-sector enterprises has been found to be good; in the private sector, the plan is to apply the sampling method, with indirect methods being used for the rest, and information on households being calculated as a remainder. No results are available.
- 13. Guatemala: goods and services accounts are still being compiled at a more aggregate level. Intermediate demand is not broken down by activity and product. Nor is reference made to mixed income, and there is no cross-classification. An implementation programme is being drawn up, the objective being to produce accounts that are integrated by institutional sector. So for, no results have been reported or published.

- **14. Honduras:** compilation is being carried out using 1978 as the base year for the goods and services accounts, in accordance with the 1968 SNA. The implementation programme should have begun in 1999.
- 15. Panama: the new base year will be 1996. In the goods and services accounts it is declared that the work is more than 75% of the way to completion, and that substantial progress has been made with cross-classification. As regards the household account, only 30% of the work is so far complete, but substantial progress is reported in the case of the remaining institutional sectors, for which there will be surveys of non-financial corporations for the year 1997. No results are as yet available.
- **16. Paraguay:** 1994 has been fixed upon as the base year. Intermediate use will be detailed for 33 activities and 268 products. Preliminary progress has been recorded as regards the evaluation of intermediate demand at purchasers' prices. As regards institutional accounts, all the measures involved are currently being decided on.
- 17. Peru: goods and services accounts have been broken down for 287 product categories. Mixed income is not compiled. Progress has been made with the institutional accounts of the Government and financial sector, while the rest are under study. Financial transactions are not considered. No results are yet available.
- **18. Surinam:** the 1968 SNA is still being applied. The census of corporations planned for 1998 was postponed, but according to the information available its was begun in 1999. Implementation of the 1993 SNA will begin after this census has been compiled.
- **19. Trinidad and Tobago:** calculation of goods and services supply and use tables for 1997 reportedly began in 1999, with 1995 as the base year. Institutional accounts are in the process of definition, and only in the case of government accounts has significant progress been made.
- **20. Uruguay:** work is at a preliminary stage. The base year fixed upon is 1997. At present, the goods and services accounts are being worked on. No reference is made to institutional accounts or to what results are available.
- **21. Venezuela:** work on the goods and services accounts is now under way. Progress is being made with the institutional sector accounts for general government and the financial sector. In the case of non-financial corporations, a study is being carried out to collect the information required to calculate the accounts of the companies identified as leaders. Most of the work has gone into improving the collection of basic statistics to produce goods and services accounts in accordance with SNA 1993.

#### b) Summary of the current state of 1993 SNA implementation

A matrix of 42 quadrants has been produced (see Table 1). By combining activities and products, these show how much has been achieved or how thoroughly the countries are preparing for implementation of the 1993 SNA. The optimum situation is indicated by the coordinates (1,1), which represent full application of the new manual in the preparation of goods and services accounts by kind of activity and accounts for all institutional sectors, with maximum data coverage, and mean that the country has achieved excellent development of its basic statistics system. Quadrant (8,7) is for the situation of least progress; countries that have not yet taken any concrete compilation and implementation measures will also be found here.

There is no country in the region that could be in either of the other extreme positions (1,7 and 8,1), since there is none, for example, that has a highly sophisticated goods and services accounts system but does not produce accounts by institutional sector. If there were such a country, it would be in quadrant (8,1). The same holds true for quadrant (1,7); there is no country in the region that produces the set of institutional accounts in accordance with the 1993 SNA but does not produce goods and services accounts.

The meaning of the abbreviations used in the matrix is as follows:

- i) At the head of the columns: SUM, supply and use matrix; PM, production matrix; AM, absorption matrix; VAM, value-added matrix; FDM, final demand matrix; VA, value added. In addition, some tables may be produced without depreciation being calculated, and this is shown by the abbreviation wt/Dep; in the case of mixed income, which may or may not be identified, this is notified by w/MI or wt/MI; the acronym EM means employment matrix; lastly, final demand may or may not give valuables, and this is shown by w/VO and wt/VO, respectively.
- ii) At the beginning of the rows: FS, financial sector; RW, rest of world; NFS, non-financial sector.

In this table the countries highlighted are the ones that are already publishing official series produced in accordance with the 1993 SNA guidelines; in no case has the implementation programme yet been completed. The remaining countries have been placed in the boxes that combine activities and products compatible with their objectives, in accordance with the information given to ECLAC.

In the case of Argentina, its place in the matrix is determined by the fact that the results relating to matrices for production and absorption of economic activities that it will make official in the course of 2000 have been treated as already available. The same situation arises in the case of Brazil, but for institutional accounts, the series of which will be published during 2000, without including financial transactions.

Table 1

MATRIX OF THE CURRENT STATE OF 1993 SNA IMPLEMENTATION

	SUM and VA as per SNA 1993	SUM and VA with PM, AM, VAM wt/Dep, FDM wt/VO and w/EM	SUM and VA with PM, AM, VAM wt/Dep, FDM wt/VO and s/EM	SUM and VA with PM, AM, VAM wt/Dep and wt/MI, FDM wt/VO and wt/EM	SUM and VA without PM, AM, but with VAM wt/Dep and w/MI, FDM wt/VO and w/EM	SUM and VA without PM, AM but with VAM wt/Dep and wt/Mi, FDM wt/VO and wt/EM	SUM and VA 1968 SNA or earlier.
Institutional accounts as per 1993 SNA on the basis of company data and with balance sheets.	(1,1)				7,50		(1,7)
Institutional accounts as per 1993 SNA on the basis of company data, without balance sheets, with cross- classification.							
Institutional accounts as per 1993 SNA on the basis of company data, without balance sheets, without cross-classification.							
Accounts for gov., FS, RW, some NFS, households, without cross-classification and without balance sheets.	Chile		<u>Colombia,</u> Ecuador, Panama, Peru.			<u>Mexico</u>	
Accounts for gov., FS, RW, some NFS, households, without cross-classif., without finan. transactions and without balance sheets.		Brazil					
Accounts for gov., FS, RW, some NFS, rest of economy, without cross-classification, without fin. transactions and without balance sheets.			Venezuela, Paraguay, Costa Rica.	<u>Bolivia</u>			
No compilation of accounts by institutional agent, except for RW, general gov. and FS, fin. transactions not considered.		Argentina					
1993 SNA implementation programme not yet undertaken, or at a very early stage.	(8,1)					Uruguay	Antigua & Barbuda, Trinidad and Tobago, Barbados, Surinam, Bahamas, Honduras, Guatemala, Jamaica.

# 4. Activities carried out by ECLAC during 1998 and 1999 to support 1993 SNA implementation in the Region

During the period 1998-1999, ECLAC continued to engage in support activities with the aim of facilitating implementation of the 1993 SNA in the countries of Latin America and the Caribbean. Among these tasks, particular mention may be made of the following:

- i) Technical documents on the production of national accounts and basic statistics were distributed, with the relevant methodological notes. Some of the main ones were:
- The final Spanish version of the 1993 System of National Accounts.
- The European Economic Community guidelines on regional accounting methods, which
  include the following subjects: i) gross value added and gross fixed capital formation by
  kind of activity; and ii) household accounts.
- As regards the publicization of classifiers, ECLAC carried on making available to the
  countries its systems for correlating international statistical classifications (the
  Harmonized Commodity Description and Coding System (HS), the Standard
  International Trade Classification (SITC), the International Standard Industrial
  Classification of All Economic Activities (ISIC), the Classification by Broad Economic
  Categories (CBEC) and the Central Product Classification (CPC).

The revised versions of the spending classifiers provisionally included in the 1993 SNA were also distributed. These are for the classification of individual consumption by purpose (CIOCP), classification of the functions of the government (COFOG), classification of the purpose of the non-profit institutions serving households (COPNI) and classification by purpose of selected outlays of market producers (COMPP).

- The electronic version of the document *Terminology used in the translation of the 1993 SNA*, produced by ECLAC, was released.
- SNA News and Notes, published by an information service of the Inter-Secretariat Working Group on National Accounts, continued to be distributed.
- During this period the Directory of national accounts experts in the Latin American and Caribbean countries was distributed. The latest updated version is that of 30 June 1999.
- ii) In its capacity as focal point for 1993 SNA implementation in Latin America and the Caribbean, ECLAC has continued to follow up the progress achieved in the region and to work together with those countries requiring it. Particular mention may be made of the following activities:
  - In the light of the results from the working meeting on criteria for evaluating 1993 SNA implementation in the countries (Santiago, Chile, May 1997), and in consultation with national accounts specialists from Chile and Peru, a new questionnaire was designed to determine the extent of the progress made by the countries of Latin America and the

Caribbean in applying current guidelines on national accounts. In the 1998 survey it was decided that this questionnaire would be sent only to those countries that had made sufficient progress by September 1998 to be able to respond to it. In the 1999 survey the questionnaire was sent to all the countries, regardless of what progress they had made in applying the 1993 SNA.

- Once the survey results had been collected, they were tabulated and this report prepared.
- At the request of the Secretariat of Economic Planning of the Argentine Ministry of Economic Affairs and Public Works and Services, assistance was given with the work being carried out by the National Accounts Office to implement the 1993 SNA. The tasks involved consisted in analysing the results of the new base year for the goods and services accounts in accordance with the recommendations of the 1993 SNA and in assisting with the design of a methodology for analysing results from the new historical series produced.
- ECLAC has continued to participate, mainly in Honduras and Panama, as a technical cooperation project execution unit in the area of national accounts and the production of basic statistics.
- iii) During the two-year period concerned, ECLAC continued to carry out promotional and technical support activities to assist with the meetings, seminars and working groups held in the region, some of which were organized jointly with the Statistics Division of the United Nations in New York and the relevant bodies from the countries concerned. Mention should be made of the following events:
  - Workshop on integrated environmental and economic accounting (ECLAC, Santiago, Chile, 20 to 24 April 1998).
  - Workshop on implementation of the institutional accounts of the 1993 SNA, organized by the Brazilian Geographical and Statistical Institute (IBGE) (Rio de Janeiro, 23 to 27 November 1998).
  - First technical seminar on harmonization of the consumer price indices of MERCOSUR countries, plus Bolivia and Chile, organized by IBGE (Rio de Janeiro, 9 to 11 December 1998).
  - Second technical seminar on harmonization of the consumer price indices of MERCOSUR countries, plus Bolivia and Chile, organized by the Chilean National Institute of Statistics (Santiago, Chile, 21 to 23 April 1999).
  - Seminar on national accounts and classifications organized by the Central Office of Statistics of the Netherlands Antilles in collaboration with the ECLAC Subregional Headquarters for the Caribbean (Curação, May 1999).
  - Third technical seminar on harmonization of the consumer price indices of MERCOSUR countries, plus Bolivia and Chile, organized by the Uruguayan National Institute of Statistics (Montevideo, 6 to 8 October 1999).

- Workshop on regional accounts implementation under the 1993 SNA recommendations, organized by the Mexican National Institute of Statistics, Geography and Informatics (INEGI) (Aguascalientes, 8 to 11 November 1999).
- iv) Support for the activities involved in training national accounts experts and producers of basic statistics related to the 1993 SNA.
  - ECLAC has continued to foster the exchange of information on requests for technical advice with the aim of locating experts, organizations and countries in the region that can provide assistance in relation to specific subjects in the areas of basic statistics production, national accounts and data processing and dissemination.
  - ECLAC has worked with training organizations active in Latin America and the Caribbean, in particular the Centre for Latin American Monetary Studies (CEMLA) and the European Training Centre for Economic Statisticians of Developing Countries (CESD, Madrid), to ascertain the needs of the region's countries in this area.
- v) Improvements in the quality and breadth of basic statistics produced for the purposes of 1993 SNA implementation.
  - Within the framework of the International Comparison Programme (ICP), ECLAC has continued with work to produce price comparisons and calculate the real output of the region, with the participation of 10 countries.
  - The International Trade and Development Finance Division and the Statistics and Economic Projections Division of ECLAC are jointly implementing a regional programme to improve statistics on international trade in services, which consists in promoting and supporting the use of a single questionnaire to collect information of this type in all the countries of the area.
  - With the aim of producing a situation report on the production of statistics for the application of the 1993 SNA, a questionnaire aimed at statistical organizations has been designed and will be distributed in 2000.

## **ANNEX**

Table 1
IMPLEMENTATION OF 1993 SNA

Country	SNA 1993 Applied	Co-ordination with Basic Statistics	Dissemination of Results	Need for Technical Assistance	Working Plan Drawn Up
Antigua and Barbuda	No			Yes	No
Argentina	Yes	Yes	1999	Yes	Yes
Bahamas	Yes	Yes			Yes
Barbados	No			Yes	No
Belize	Yes	Yes		Yes	Yes
Bolivia	Yes	Yes	1996		Yes
Brazil	Yes	Yes	1997	Yes	Yes
Chile	Yes	Yes	1999	Yes	Yes
Colombia	Yes	Yes	1999	Yes	Yes
Costa Rica	Yes	Yes	2000	Yes	Yes
Cuba	Yes	Yes		Yes	Yes
Dominica	•••				•••
Dominican Republic	Yes	Yes	1999	Yes	Yes
Ecuador	Yes	Yes	1999	Yes	Yes
El Salvador	No	Yes	***	Yes	No
Grenada	No	and the second			No
Guatemala	Yes	Yes	1999	Yes	Yes
Guyana					•••
Haiti	No		l	Yes	No
Honduras	Yes		2002	Yes	Yes
Jamaica	Yes	Yes		Yes	Yes
Mexico	Yes	Yes	1999	Yes	Yes
Nicaragua	Yes			Yes	Yes
Panama	Yes	Yes	2000	Yes	Yes
Paraguay	Yes	Yes	2000	Yes	Yes
Peru	Yes	Yes	1999	Yes	Yes
Saint Kitts and Nevis	No				No
Saint Lucia	No		<i></i>		No
Saint Vincent and the	No			Yes	No
Grenadines					
Surinam	No				No
Trinidad and Tobago	Yes	Yes	1996	Yes	Yes
Uruguay	Yes	Yes		Yes	Yes
Venezuela	Yes	Yes	2001	Yes	Yes

Table 2

CLASSIFICATIONS APPLIED

Country	CPC and ISIC Rev.3	Adaptation of CPC and ISIC Rev.3
Antigua and Barbuda		•
Argentina	•••	Yes
Bahamas		•••
Barbados		
Belize		***
Bolivia		Yes
Brazil	Yes	***
Chile	***	Yes
Colombia		Yes
Costa Rica		•••
Cuba		***
Dominica		
Dominican Republic	Yes	***
Ecuador		Yes
El Salvador		Yes
Grenada	***	
Guatemala		Yes
Guyana	***	
Haiti	***	
Honduras	•••	Yes
Jamaica	***	Yes
Mexico		Yes
Nicaragua	***	
Panama	***	Yes
Paraguay	*11	Yes
Peru	Yes	•••
Saint Kitts and Nevis	***	
Saint Lucia		1.71
Saint Vincent and the Grenadines	•••	•••
Surinam		
Trinidad and Tobago	***	Yes
Uruguay	***	
Venezuela		Yes

CPC: Central Product Classification, Serie M, N° 77, Version 1.0. ISIC: International Standard Industrial Classification of All Economic Activities, Serie M, N° 4, Rev. 3.

Table 3
INFORMATION ON THE USE MATRIX

Country	Intermediate Use Matrix	Import Matrix	Number of Economic Activities	Number of Products	Valuation at Basic Prices	Valuation at Product Prices	Valuation at Purchasers' Prices	Intermediate Use Vector
Antigua and Barbuda	•••	***	***	***	•••			***
Argentina	No	Yes	360	360	Yes	Yes		Yes
Bahamas	***	4.07	***			***		***
Barbados		***				***	***	***
Belize						***		•••
Bolivia		***						***
Brazil	Yes	Yes	80	80	Yes	Yes		Yes
Chile	Yes	Yes	75	75	Yes	Yes		Yes
Colombia	Yes		60	60	Yes			Yes
Costa Rica	Yes	***	127	170	Yes	Yes	Yes	Yes
Cuba		***	***			• • • •		***
Dominica						***		4.,
Dominican Republic	***	Yes	30	247	Yes	Yes	Yes	***
Ecuador	Yes	Yes	287	600	Yes	Yes	Yes	Yes
El Salvador	Yes		45	45			Yes	Yes
Grenada		r ***	****			***		
Guatemala	Yes	Yes	44	177	Yes	Yes	Yes	Yes
Guyana		***	***			***		***
Haiti		***				***		•••
Honduras	Yes	***	135	135		Yes		Yes
Jamaica			•••			•••	***	
Mexico	No	Yes	287	287	Yes	Yes	Yes	Yes
Nicaragua	.,,	,,,					***	***
Panama			31	144		•••		
Paraguay	***	***	33	268	Yes	Yes	Yes	***
Peru			287	287	Yes	Yes	Yes	***
Saint Kitts and Nevis	***	***		•••	***	•••		***
Saint Lucia				***		***		***
Saint Vincent	***	***		,		4 * *		***
and the Grenadines								
Surinam		***			***	***		***
Frinidad and Fobago	***	***		***	•••	***	•••	***
Jruguay		***	40	60				,,,
/enezuela		***					451	***

Table 4
INFORMATION ON FINAL DEMAND

Country	Government consumption	Households consumption	Effective households consumption	Exports	Gross fixed capital formation	Change in stocks	Acquisition net of valuables
Antigua and Barbuda		•••	•••	•••	•	***	•••
Argentina	Concluded	Concluded	***	Concluded	Concluded	Concluded	
Bahamas		***		***	***	***	71X
Barbados			***	***			
Belize		***	***				***
Bolivia			***				
Brazil	Concluded	Concluded	Concluded	Concluded	Concluded	Concluded	***
Chile	In progress	In progress	In progress	In progress	In progress	In progress	
Colombia	Concluded	Concluded	Concluded	Concluded	Concluded	Concluded	Concluded
Costa Rica	Concluded	Concluded	To be decided	Concluded	Concluded	Concluded	To be decided
Cuba					***	***	***
Dominica	111		***			***	***
Dominican Republic			A P *			***	***
Ecuador	In progress	In progress	***	In progress	In progress	In progress	
El Salvador	In progress	In progress	To be decided	In progress	In progress	In progress	To be decided
Grenada			***	1			
Guatemala	Concluded	Concluded	Concluded	Concluded	Concluded	Concluded	Concluded
Guyana	***	.,.					
Haiti			***			•••	***
Honduras	Concluded	Concluded		Concluded	Concluded	Concluded	4
Jamaica	***		•••		***	•••	***
Mexico	Concluded	Concluded	Concluded	Concluded	Concluded	Concluded	***
Nicaragua	***			***		***	***
Panama	To be decided	To be decided	To be decided	To be decided	To be decided	To be decided	To be decided
Paraguay	In progress	In progress	To be decided	In progress	In progress	In progress	To be decided
Peru	In progress	in progress	In progress	In progress	In progress	In progress	
Saint Kitts and Nevis	•••	•	•••				•••
Saint Lucia	*1*	***	***	***	•••		111
Saint Vincent	***		***				•••
and the							
Grenadines							
Surinam	***		***	,		•••	***
Trinidad and Tobago	•••	•••		***		•••	***
Uruguay	in progress	In progress	In progress	In progress	In progress	To be decided	***
Venezuela			4++		***	•••	

Table 5
VALUE-ADDED QUADRANT

Country	Consumption of capital fixed	Operating Surplus	Mixed Income	Other Taxes on Production	Compensation of employees	Total Value Added
Antigua and		•••	•••		***	***
Barbuda						
Argentina	•••	Concluded	Concluded	Concluded	Concluded	Concluded
Bahamas			***		•••	
Barbados		***	•••			x.,
Belize	***	***	•••	111	***	
Bolivia	***	•••	***			
Brazil		Concluded	Concluded	Concluded	Concluded	Concluded
Chile	In progress	In progress	In progress	In progress	In progress	In progress
Colombia	Concluded	Concluded	Concluded	Concluded	Concluded	Concluded
Costa Rica	Concluded	Concluded	Concluded	Concluded	Concluded	Concluded
Cuba		***	***		• • •	***
Dominica	•••		,.,		111	
Dominican Republic		•••	• • •			•••
Ecuador		In progress	***	In progress	In progress	In progress
El Salvador	To be decided	To be decided	To be decided	To be decided	To be decided	Concluded
Grenada						
Guatemala		***	***		434	
Guyana	***	•••	***		111	***
Haiti			***		***	
Honduras	Concluded	Concluded	***	Concluded	Concluded	Concluded
Jamaica			•••			
Mexico	Concluded	Concluded	***	Concluded	Concluded	Concluded
Nicaragua	4**				•••	
Panama	To be decided	To be decided	To be decided	To be decided	To be decided	To be decided
Paraguay	To be decided	To be decided	To be decided	In progress	In progress	In progress
Peru	In progress	In progress		In progress	In progress	In progress
Saint Kitts and Nevis		•••	***	•••	•••	***
Saint Lucia			***			
Saint Vincent		•••			***	
and the Grenadines						
Surinam	***	***	***		•••	
Trinidad and Tobago		•••	***	***	***	***
Uruguay	***	To be decided	To be decided		In progress	
Venezuela						

Table 6

NEW NATIONAL ACCOUNTS BASE YEAR PROPOSED AND BASIC STATISTICS AVAILABLE

Country	New base year proposed	Industrial Survey	Household Survey
Antigua and Barbuda	***	•••	
Argentina	1993	1993 a/	1986
Bahamas	1991		1994
Barbados	***		***
Belize	***	***	* * *
Bolivia	1990	1995	1990
Brazil	1990 b/	1994	1987
Chile	1996	1996	1997
Colombia	1994	1995	1994
Costa Rica	1991		1988
Cuba		***	***
Dominica			***
Dominican Republic	1991	h + +	1984
Ecuador	1993	1996	1995
El Salvador		1996	1990
Grenada			
Guatemala	1995		1980
Guyana			***
Haiti	***	***	1987
Honduras	1992	1996	1978
Jamaica	1986	***	1984
Mexico	1993	***	1989
Nicaragua			1984
Panama	1996	1994	1984
Paraguay	1994		1991
Peru	1994	1994	1994
Saint Kitts and Nevis		* * *	
Saint Lucia		***	
Saint Vincent and the Grenadines	•••	***	•••
Surinam		***	***
Trinidad and Tobago	1995	1995	1988
Uruguay	1997	1995	1994
Venezuela	1997	1996	1988

a/ Economic census

b/ 1990 is the first year of the new series. Constant price series are expressed at previous year's prices

Table 7

NEED FOR INTERNATIONAL TECHNICAL ASSISTANCE

Subjects of interest	Urgent Need	Moderate Need
Application of classifiers	Guatemala	Panama, Uruguay
SU Tables, PM to pb, Ins., Pdt., Production Accounts	Trinidad and Tobago	Panama, Guatemala
Statistics on Foreign Trade, Balance of Payments, External Sector Accounts	Honduras	Trinidad and Tobago, Guatemala
Governmental statistics and Government Sector accounts	Costa Rica, Honduras, Venezuela, Guatemala	Panama
Financial statistics and Financial Sector accounts	Panama, Guatemala	Trinidad and Tobago
Relationship between company accounting and national accounting	Honduras, Uruguay, Guatemala	Panama
Non-financial private sector accounts	Honduras, Uruguay, Trinidad and Tobago, Guatemala	Costa Rica, Panama
Household Survey and other research for the Households account	Honduras, Trinidad and Tobago, Guatemala	Panama
Integrated accounts for Institutional Sectors	Costa Rica, Honduras, Trinidad and Tobago, Guatemala	Panama, Uruguay
Accumulation (investment, financing, changes in the volume of assets, revaluation and balance-sheets)	Costa Rica, Honduras, Guatemala	Panama, Trinidad and Tobago
Computer system for compilation of national accounts	Costa Rica, Honduras, Trinidad and Tobago	Panama, Guatemala
Organizational development of national account units	Costa Rica, Honduras, Trinidad and Tobago	Panama, Guatemala