

**Major Features of the Recent Revisions, introduced in the UN
1993 System of National Accounts, (UN 1993 SNA)**

Main Goal: to enhance the Analytical Capabilities of the System

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A Prelude

Two years ago, this author presented at the first Arab Statistical Conference which was held in Amman of Jordan, a paper, (in Arabic), (1), describing critically the UN 1993 System of National Accounts, (1993 SNA), and highlighting the ongoing revision of some of its concepts and some of its methodologies to estimate and account for certain activities and variables in the economies. This revision was the fourth to be carried out for the System, since its inception in 1951 and formulation in 1953; (2), it was a part of the evolutionary periodical endeavors to remove ambiguities, incorporate new developments in various economic and financial activities, and to achieve overall consistencies within the structure of the System, on one hand, and harmony with other international statistical Systems and classifications, on the other. This recent revision process was started in the year 2004 and continued till March 2009. The Inter-Secretariat Working Group, (ISWGNA), formed by representatives from the major five UN Agencies, (3), was entrusted with the tasks of the overall responsibility to direct, organize the works of the various expert groups, and to coordinate amongst various interested parties. After almost five years of consultations and meetings of various expert groups, agencies and UN member countries had elapsed, during which, the Advisory Expert Group, (AEG), was acting as the filter body for all the various contingent expert group reports and recommendations, the final revised version of the new SNA, renamed as the 2008 SNA,

was approved by the UN Statistical Commission, and endorsed by the Economic and Social Council of the United Nations last March of this year. The SNA Manual came up, eventually, in two volumes, instead of one, covering 29 chapters instead of 21, as was in the previous version. The full pre-edited 2 volumes Text of the 2008 SNA is now available, embodying all relevant changes, as new *standards* to be followed by UN member countries, beside some recommendations that are left as options for the countries whose state of statistical art may not enable them to implement them; (these are designated as *supplementary*). We will navigate, selectively, through the large Text. We would not be able to expound the details of the changes but indicate their nature and illustrate some of the most important ones. Description of methodological issues would require a manual, not a research paper. (4)

The first three sections of the paper present some background on the development of the System and indicate its basic structural features as they stand in the third revised formulation of the System, i.e., the 1993 SNA. The limitations and flexibilities of this System are, then, pointed out, in light of its prior research agenda and lessons learnt from a decade of international applications. The second three sections will focus on explaining, the main features of the changes in the revised 2008 SNA. The various purposes and uses of the changes will be mentioned, and the relevance of the whole new 2008 SNA for the promotion of powerful statistical and economic analyses will be assessed.

The role of the 2008 SNA in the development of statistics around the world, particularly in developing and Arab countries will be discussed. Then some conclusions and recommendations for the enhancement of statistical development in the Arab countries are given in section 6. The last section accommodates annexes.

1. Background and a brief discourse on the landmarks of the major development of the UN System of National Accounts, since its first formulation in 1953

The concepts and terms, used throughout all versions of the UN SNA derive their origin from the economic theory which dates back to Adam Smith and other Classics of the Eighteenth Century. Further development in economic thoughts, as manifested largely by the Keynesian economics, and the concomitant advancement in applied and research statistics, and econometrics were echoed in the refinements of the SNA structure, accounts, relations and, of course, concepts and terminologies.

After the Second World War, the interest in a unified and theoretically consistent system for the measurement of output and generated incomes and expenditures had intensified. This was more so with the rising needs to estimate war reparations and compensations that had to be allocated amongst various warring parties, in accordance to their productive capacities, on hand, and to the extent of war destruction, on the other. In 1947, Richard Stone of Cambridge University proposed a simplified National Accounts Model with a little number of accounts that were based on clearly defined statistical data, which could be provided by member countries. (5) The newly founded United Nations appointed expert groups under Stone's chairmanship to elaborate a comprehensive System of National Accounts. This led to the formulation of such a System in 1951; the System was then elaborated further and

endorsed as a System for regular collection of data and compilation of national country accounts in 1953. (6) After 16 years of application by some UN member countries, the UN, through its major Agencies, found out that the System with its little number of accounts was too restrictive for universal and diversified uses. Hence, expert groups were entrusted with the tasks of revising it. This second revision was comprehensive indeed; it led to the birth of the 1968 SNA, while the 1953 SNA was referred to thereafter as the Old System. (7) The new 1968 SNA was wider in scope, and conceptually more comprehensive, and in terms of accounts, covered all aspects of economic, financial and social activities of the real lives of peoples and economies, regardless their stages of development. The 1968 SNA accounts and aggregates reflected magnitudes of activities which were supposed to be based on economic concepts and classified according to the Standard UN classifications, like the ISIC and other classifications. (8) A social accounting, and input/output matrices, and flow of fund tables were proposed by this new System. Yet, a quarter of a century later, the realities of the fast development of economic and social life in the world at large, and due to the extensive and increasingly diversified economic and financial transactions in most if not all countries, apart from advancement in the availability of primary and basic statistic, necessitated a third revision of the 1968 SNA, which was also needed to make the System more consistent with other international systems of statistics, like the IMF Balance of Payment

Manual, (BPM), the International Standard Industrial Classification, revision 3, (ISIC 3), and some other specialized systems. (9) This led to the advent of the 1993 SNA which we will discuss, briefly, in the next section.

2. Basic structural features of the System in its third face of revision in 1993, (the 1993 UN SNA); its main descriptive and analytical goals

This System has been detailed in our paper in Arabic, referred to earlier. To avoid repetition and to give more attention to the new 2008 SNA, only some of the basic features of the 1993 SNA will be briefly indicated.

A- General Structural features of the 1993 SNA:

To start with, the 1993 had not only filled up some major gaps in the previous 1968 SNA, but also came up with updates and innovations:

- a- Introduced criteria for the estimation of GDP and other National accounts in real terms, i e., at constant prices.
- b- Elaborated the Supply and Use tables, (SUT), which are considered essential not only as prerequisites to compute the input/output matrices, but also because of their vital role in quantitative economic analyses and their use in the checking up of consistencies amongst the entire economic flows in the economy.

c- Articulated the hierarchy of accounts, (*the accounts are based on identity equations where the unknown is embedded in the difference between the two sides of the equation. Then the principal commercial rule of accounting is modified and applied, so that we have two sides for every account, credit and debit, or incoming and outgoing, or liabilities and assets. The difference between the two sides of the account is the balancing item which is usually the aggregate or the variable we are looking for*); this was done through a system of integration, where you could have the Central System of Accounts, where the consolidated accounts at the national level of the economy, followed by various sector accounts, paralleled with transactions accounts which start with the production account, then the generation of income account, to be followed with a set of primary and secondary distribution and disposal and use of income accounts. These accounts are then rounded off in the so called accumulation accounts; the capital and financial accounts. The sequence of accounts would include the non-resident *accounts of the rest of the world*, as well. *Revaluation accounts and accounts on other changes in the volume*

of assets are included so as to account for changes that do not stem up from economic flows, but from flows, termed as *other flows*, (mainly non-economic flows). The resultant balancing items of the accumulation, other changes in the volume of assets and revaluation accounts are then reflected in the *sectoral* and *national balance sheets accounts* which would show the final changes between the opening and closing assets, (non-financial and financial assets).

- d- The ingenuity of all these accounts is typified by their suitability to show the most detailed, as well as the most aggregated data; i.e., you can see both the trees and the wood at the same time.
- e- Moreover, the 1993 SNA, innovated a set of what was termed as *Satellite Accounts* which were designed to tackle some vital issues, even if that meant using some specialized terms that might not be exactly congruent with those of the terms used in the core central system of the SNA. Satellite accounts like the *input/output matrices, the economic environmental accounts, consumer*

expenditure accounts, and other special purpose accounts, like the flow of fund tables, all have their own more detailed methodological manuals. (10)

- f- More on the details of the definitions, concepts, classifications, and structure of the accounts and their articulation can be found in the original Manual of the 1993 SNA and other sources, including our paper in Arabic, already referred to. (11)

B- Main Descriptive and analytical goals of the 1993 SNA:

The 1993 SNA had been designed for almost the same objectives as those of its predecessors, except that it went further in terms of scope, and in terms of the descriptive and analytical purposes, it purported to serve. We will see that the new 2008 SNA still maintains the same objectives but goes further in terms of clarity, applicability and consistency. More on this, later on. However, we may summarize the main descriptive and analytical goals of the 1993 SNA as follows:

- a- The System aims at describing economic and financial transactions, (***or flows as they originate in the activities of production, income earning, and expenditure making***), which take place between transactors of any economy. Also, it aims to capture transactions in stocks and assets, (tangible and intangible). And, in order to cover the whole spectrum of human activities in their intercourses with nature,

environment and societal events, it devises accounts, which can record changes due to other flows, e.g., natural disasters, thefts, depletion of natural resources, like fisheries, mines, etc. There are, also, other flows which need to be recorded; i.e., changes in values of assets for non-productive reasons. All these events are recorded in two major accounts; the *changes in the volume of assets account* and the *revaluation account*.

- b- The System divides the economy into four major sectors, including some sub sectors; ***the non-financial sector where all economic productive activities are carried out; the financial sector where all financial and insurance services and monetary transactions are pursued; the general government sector, and the household sector. The rest of the world account could be considered as a fifth sector.*** These sectors may include sub-sectors or non-profit institutions, (NPIs), serving them. The transactions of all those sectors and institutions are governed by certain rules and criteria of estimation, so as to convert them into accounts. The major purposes of their compilation are to describe and analyze the dynamic economic and financial activities of the economies. The analyses would answer some fundamental questions that are most relevant for economic analysts and policy maker whose job is to monitor and assess growth and development of the economies, questions like;
- 1 - Who produces what?
 - 2 - What is being produced?

3- From whom to whom, and by what means of production and exchange?

These are vital analytical questions, and their answers would be critical for rational policy making.

In this regards two points can be made, first it is of prime importance to have vivid and consistent definitions, classifications and guidelines for conceptually correct estimation of the various activities. Second, the implementation of this articulated System, with all its subsequent development, presupposes appropriate provision of primary statistical data. If relevant data in their conceptually right form is not available with a high degree of reliability, then the huge analytical aims of the System will be missed out. Let us have a word on limitations and flexibilities of the 1993 SNA, which led, after a decade of international application to its revision.

3. Limitations of the UN 1993 SNA; its flexibility and research agenda for future development:

All Statistical systems and standard international classifications and criteria, including those of the SNA, respond in their designs and contents to contemporary needs of economic and financial development in the economies of the world. Though major strategic goals do not change as frequently, the scope, concepts and rules of compilation and presentation of those international systems would have to change periodically in order to keep pace

with current dynamic development of the world economies, as witnessed to-day in the so called process of globalization. The Free world Trade System, the growth in international interdependencies, the fast development in financial tools and credit systems, and the increasingly expanding boundaries of production and the rapidly diversified economic and environmental activities, all these changes would, imperatively, necessitate changes and, perhaps, additions of new concepts, whether in terms of international standards and systems for measurements, or in terms of rules for compilation. This welcomed phenomenon is now clearly evident; we have now four generations of some of the international statistical systems and classifications, e.g., the ISIC, the BPM, HS classification etc. (12) This is also true with regards to the SNA; we are now witnessing its fourth revision since its inception in 1953. These revisions had to go hand in hand with the revisions of the related other statistical systems and classifications. This is needed, if only to preserve and maintain consistencies amongst these highly interrelated systems, and to keep pace with the ongoing development in the world at large.

On the basis of the foregoing arguments, the revision of the 1993 SNA must be looked at as a rational and necessary development for updating and deepening knowledge, understanding, monitoring and analyzing growth and development in the world. So, the SNA 1993 should not be looked at as a restrictive system which needed revision, it was the product of its epoch. In fact, the 1993 itself

envisioned many of the required later changes. This was manifested in its future research agenda which was stated in the SNA Manual at the time of its issuance. Furthermore, the 1993 SNA included various optional approaches to handle certain aggregates or flows like the treatment of financial service of the banking sector. There are other issues of methods of estimation that were presented with some choices, while others were postponed for future consensuses. It may be fair to say that the 1993 SNA was a flexible rather than a restrictive system. As we will briefly show, most of the 1993 research agenda is taken up and covered in the newly revised System, together with additional issues, as we will now turn to in our ensuing discussion.

4. Nature and types of major amendments and revisions of the 1993 SNA, classified by numbers, topics and chapters:

To present, succinctly, the major changes, stemming from this new revision of the 1993 SNA, the following four points are made:

- a. The organizational and operational system, adopted by the UN Inter-secretariat Working Group on National Accounts, (ISWGNA), to have the changes formulated.
- b. The types, number and topics of the main changes, proposed, and the chapters which were revised or rewritten or added to the original 1993 SNA Text.
- c. A brief elaboration on the purposes and analytical uses of these changes, with some selected illustration. No

methodological exposition will be attempted, since this might require a manual not an introductory paper. (13, 14 and 15).

a. The organizational and operational system, adopted by the UN Inter-secretariat, (ISWGNA), to have the changes formulated:

Bearing in mind that the final 2008 SNA retains the basic theoretical framework of its predecessor, hence no restatement of this framework is made here, since a brief indication is already given, while discussing the 1993 SNA earlier in this paper.

In 2003 a list of issues was proposed by the ISWGNA, and endorsed by the Statistical Commission, (UNSC). Some of these issues were already included in the research agenda of the 1993 SNA, others reflected new aspects of economies that had come into prominence, and attracted analytical attention, necessitating therefore clarifications and guidance on a wide range of issues. Five main groups of issues can be identified in terms of the expert groups involved:

- 1- The 2nd Canberra Group, (Canberra II Group), worked on the non-financial assets delineation; particularly on “intangible assets”. These issues are considered fundamental for studies on productivity.
- 2- A Task Force on Harmonization of the Public Sector Accounts, (TFHPSA), liaisoned with the International Public Sector Accounting Standards Board, (IPSASP), so as to develop approaches that users of the Government

Finance Statistics Manual, (GFSM), can adopt for the delineation of the Government and Public Sector from the Rest of the World with respect to transactions, securitization vehicles, in order to ensure objective recording of items that could affect significantly the Government debts.

- 3- A number of issues on financial services were dealt with by special expert groups, (EDG), e.g., non-life insurance, treatment of employees stock options, impaired, (non-performing), loans, detailed examination of the services provided by financial institutions to account fully to the SNA`s criteria, pension entitlements even when schemes may not be fully funded.
 - 4- Issues of the IMF Committee on the Balance of Payments, (BOPCOM), related to the international investment position, treatment of different financial assets, instruments linked to foreign currencies, remittances and globalization.
 - 5- Clarification of ancillary units and holding companies, and Measurement of informal and illegal activities.
- b. The types, number and topics of the main changes, proposed, and the chapters which were revised or rewritten or added to the original 1993 SNA Text:

These issues were numbered from 1 – 44 as they were added to the list, though including several sub-issues. Space in this paper neither permits giving full listing of those issues, nor discussing them and the recommendations

related to them. So, it may be easier to mention them, as grouped by topics and chapters, without further descriptions. In terms of topics they are grouped into six groups:

1. New changes give further specifications of statistical units and revisions in institutional sectoring;
2. Further specifications of the scope of transactions including the production boundary;
3. Extension and further specification of the concept of assets, capital formation and consumption of fixed capital. This revision led to modification in the classification of non-financial assets, see annex no.1;
4. Further refinement of the treatment and definition of financial instruments and assets. This revision led to modification in the classification of financial assets, see annex no.2;
5. Further specifications of the scope of transactions concerning government and public sector;
6. Harmonization between concepts and classifications of the SNA and BPM6.

In terms of chapters, those revisions, further specifications and refinements can be summarized as follows:

1. While no changes are effected in the introductory chapter 1, chapter 2, on overview is also unaffected, except that all new changes are just outlined.
2. Chapters 3 to 13 are left in the same order as was in the 1993 SNA, but main outlines of new changes are inserted.

3. Chapters 14 to 29 are reordered or contain new material or both.
- c. A brief elaboration on the purposes and analytical uses of these changes, with some selected illustration. No methodological exposition will be attempted, since this might require a manual not an introductory paper:

We stated in section 3 earlier that the main purposes of this fourth revision of the 1993 SNA were to respond to the dynamic changes in economic, financial and social activities in the economies of the world at large, and to enhance the analytical strength of the SNA. Such response necessitated various amendments and revisions, whether in term of concepts, definitions and classifications, or in modifying scopes and boundaries of various activities, or in adding further specifications and clarifications of the SNA issues. A few examples of illustration of the present revision can be given; the scope of this paper cannot accommodate detailed exposition.

1. Some basic concepts are clarified; the term ownership in the SNA is now based on use and risk taking rather than on legal ownership. The definition of residency of entities and non-permanent workers is reworded. Various other concepts like ancillary units and corporations, residing in different locations and holding companies are now delineated and clarified, so that implications for the flow accounts within the institutional sectors, like taxation and

transfers can be identified. The SNA accrual principle is made much clearer.

2. Production boundaries are refined; the term “knowledge-capturing products” has been introduced to cover those items that have some of the characteristics of goods and some of the characteristics of services. The non-observed economy is given extensive discussion. The three-way distinction of production; market, non-market and final use is now refined in terms of estimating cost which should now include a return on fixed capital. Greater clarification on how to measure output that takes a long time to complete, and to identify in respect to storage when this is a productive activity rather than a holding gain. The measurements of the output of central banks and financial and insurance services are now refined in clearer terms. Research and development, weapon systems, and the consumption of fixed capital are revised with relevant recommendations for their method of estimation.
3. On the distribution, redistribution and use of income, several changes are introduced;
 - The entrepreneurial accounts and thus the allocation of other primary income account are now restricted to financial and non-financial corporations.
 - Measures of employment have been updated to include the ICLS recommendations.
 - There are significant changes regarding the measurement of social contributions, investment

income, taxes on production and property income; the latter is aligned with the BPM6.

- A new concept of the resource lease is introduced in relation to payment of rent.
- Implicit taxes and subsidies in respect of interest rates charged and paid by central banks are introduced.
- The term of retained earning has been introduced explicitly for all enterprises.
- Investment income, payable under pensions, is extended to all pension schemes.
- Household remittances payable and receivable from individuals working abroad, made explicit as transfers.
- The disaggregation of social transfers in kind has been simplified.
- The distinction between individual and collective services has been changed to follow the changes made to the COFOG classification, (13).

4. On the capital accounts;

- Non-produced assets are categorized into; natural resources, contracts, leases and licences and purchased goodwill and marketing assets.
- Improvements to land are considered as a separate fixed asset from the natural asset. And there is a clarification on the cost of ownership transfer.
- Information, computer and telecommunications equipment is introduced as a new category of gross capital formation.

- Weapons and intellectual property products are introduced as new categories of assets. Research and development is now treated as fixed capital formation in most cases.
 - The evaluation of the title for mineral exploration has been reconsidered in line with data availability according to IASB recommendations.
 - Software heading has been changed to include databases.
 - Within inventories, a new category of military inventories is included.
5. On the financial account;
- There is a changed treatment of monetary gold and of metals in general.
 - Liabilities are now recognized for SDRs.
 - A category is introduced for inter-bank positions within the new classification of financial assets.
 - Various other financial instruments have been introduced, while the treatment of some others is revised, or reclassified with financial derivatives, as with employee stock options. There are recommended memorandum items in respect of non-performing loans.
6. On the other changes in assets account;
- A new classification of all the volume changes is presented to simplify the transition from one balance sheet to another.

- It is clarified that the only losses in inventories that appear in the other volume changes account are those that are irregular.
7. On the balance sheet;
- The concept of an asset account is presented.
 - There is greater description of the possible ways to establish the valuation of equity.
 - The flow of funds analysis has been moved to chapter 27.
8. On the supply and use tables and goods and services account;
- There is a significant reformulation of the text in this chapter.
 - There is a greater description of how transport charges are to be recorded in a supply and use table and how they affect producer and purchaser prices.
 - The revised treatments for intra-enterprise deliveries and goods sent abroad for processing have major consequences for this chapter.
 - There is a description of deflation of supply and use tables.
9. On price and volume actions;
- The present chapter includes significant revisions on consumer prices, import and export prices and the revised International Comparison Program manual.
 - The chapter includes text on the application of price indices to deflate national accounts.

10. Extensive and detailed updating is carried out for some important issues;
 - insurance, including reinsurance and annuities;
 - social insurance schemes and in particular pensions including a supplementary table;
 - standardized guarantees;
 - financial services, showing where explicit and implicit charges are made on the complete set of financial instruments;
 - contracts, leases and licences, bringing together all aspects of such arrangements;
 - Employee stock options.
11. On population and labour inputs;
 - the ICLS recommendations of 2008 are incorporated;
 - More discussions and elaborations are included for issues on; volunteer labour, quality-adjusted labour, and on labour productivity.
12. On capital services and the national accounts;
 - A new chapter is added in response to the research agenda of the 1993 SNA. It suggests a supplementary table that may be included on optional basis.
13. On measuring corporate activity;
 - This is a new chapter discussing subjects such as mergers, acquisitions and globalization.
14. On the general government and public sectors;
 - This is a new chapter aimed at providing a link to government statistics, debt and deficit procedures and

external debt in so far as the public sector is concerned.

- It includes discussion on how the relationship between government and corporations should be recorded in case of a financial crisis.

15. On other important changes in other issues;

Several other important changes covered some basic other sectors and accounts:

- non-profit institutions;
- the household sector;
- the informal aspects of the economy;
- the rest of the world accounts and links to the balance of payments;
- links to monetary statistics and the flow of funds;
- the input-output and other matrix-based analysis;
- satellite accounts and other extensions;

All these changes covered a wide range of the SNA concepts, terms, relations and estimation criteria. Their impact is bound to be significant in respect to data requirements and upgrading in statistical art and methods. This is apart from their positive effects on analyses. The whole new Text is reinforced by some relevant annexes, glossaries and references.

Yet, there are several other issues where proposed changes are either offered with options or left for future development in the 2008 SNA Research Agenda. Some proposed changes of a few issues had not received full consensus.

5. The relevance of the new 2008 SNA to promote more powerful statistical and economic analyses, and for the development of economic statistics around the world; particularly in developing and Arab countries:

We stated earlier on that the periodical revisions of the SNA were (and are) to keep update with the ever changing economic and financial environment of the world economies. But looking through the final completed Text of the 2008 SNA, and in light of the overall review of its revised contents, there are three major consequences in terms of the uses of the System, and three other impacts on basic data requirements, and the concomitant needs for promoting the state of statistical art; meaning the upgrading of statistical skills and allocation of funds to invest in this ever growing branch of scientific quantitative economic and statistical research.

a. Consequences in terms of uses of the SNA;

- The new revised System provides effective tools not only to quantify macro-economic magnitudes but also to dissect the economies and to identify the interactions among the economic and financial players; more than this, accounts can be constructed at the national, sectoral and micro levels. So, the economic analysts can see both the wood and the trees! The

analytical and diagnostic studies would be the greatest beneficiary of the System in its new version.

- With the updating, refinements and extensions of the System, analysts are now more able to discern more effectively impacts of changes in world trading, international financial transactions, and the likely effects of world depressions or booms on countries involved, if relevant data becomes available.
- The 2008 SNA could generate a huge number of economic, financial, and even social indicators that would serve not only analysts but also policy makers and leaders of decision making in respect of economic and financial, and even political issues.

In view of the foregoing, the analytical impacts of the System are quite significant.

b. Major impacts of the data requirements of the 2008 SNA;

- The data requirements of the revised System are now greater than ever. So one of the immediate challenges which countries would have to meet, in order to apply this System, 2008 SNA, is to upgrade and expand both the quantity and quality of relevant data. Of course countries vary not only in stages of economic development but also in terms of the state of statistical arts achieved. Advanced countries can respond to this challenge and can perhaps provide most of the data requirements of the System. Many developing countries, including Arab countries, may lack sufficient resources or sense of priority, or both, to cater for the provision of a large part of the data

requirements of the System. A huge list of statistical data needs can be drawn but this goes beyond the scope of this paper.

- The 2008 SNA provides a vast kit of conceptual knowledge and guidelines for statistical methods. Hence, it represents a great source of learning, and its role for enhancing statistical development is now greater than before. Developing countries, generally, and Arab countries particularly, could envisage a comprehensive plan to expand and upgrade their statistical data in light of the 2008 SNA data needs.
- To expand and develop statistics require qualified statisticians who can carry out or plan field surveys or develop administrative statistics. This certainly entails the need for training plans and schemes for upgrading qualifications and skills.

Statistics in all forms are now considered part of the realm of research and development, and this is now part of capital formation, not consumption. This means expenditures to upgrade statistics are investments which should have great subsequent economic and social returns. Some countries take the wrong attitude that spending to enhance statistics is mere consumption expenditures!

6. Conclusions and basic recommendations for the enhancement of statistical development in the Arab countries:

This paper endeavoured to present an overview of the 2008 SNA with an integrated background of the development of the System, but its focus was on giving a comprehensive descriptive account, rather than offering a critical essay about it. Having portrayed the whole System in a condensed style, little room was left to point out what might be termed as avenues for further development. A separate paper might be envisaged to investigate further paths of progress in the System for the future. Firstly, this newly revised System like its predecessors has not explored the possibility to propose modifications in the concept of the GDP or the NI, so as to incorporate a method to measure welfare, not just the value added of goods and services. But one can sense some fountains in the present revision towards that direction. Secondly, since the SNA accounts delineate goods and services accounts from financial and monetary accounts, this author believes that this offers a very rich ground for deriving a model to study the disparities between the commodity sectors as paralleled by money and financial instruments sectors. Such a model might become illuminating for the analyses of cases of depressions and booms; this idea can be developed in the field of econometric research rather than here. However, the main conclusions and subsequent recommendations can be briefly listed hereunder:

- 1- **The overall conclusion** is that the 2008 SNA, as it stands to-day is a very important articulated system which should be fully utilized by UN member countries, not only

to gain effective tools for economic and policy analyses, but also for the development of their systems of statistics.

2- **Some recommendations:**

2.1- Developing and Arab countries must take full advantage of the new SNA System to build up their strategies for the development of their basic statistics.

2.2 Arab countries can pool their resources to plan training programs to upgrade not only their general statisticians but also to have their national accountants qualified.

2.3- The Arab Institute for Training and Statistical Research, AITRS, can play the role of a catalyst, to organize in cooperation with the Arab statistical offices, and, perhaps in cooperation with UN- ESCWA and other regional agencies to promote training seminars and workshops, on the basis of a well calculated and coordinated plan to cover all Arab countries.

2.4- This System as well as other international statistical systems must be taught and disseminated during the next five years in all Arab statistical offices and institutions.

2-5- Researches in both theoretical and applied statistics must be firmly advocated, since these represent prime movers for real and efficient development in all Arab countries.

ANNEXES

ANNEX NO: 1

Proposed revised classification of non-financial assets

Non-financial assets

- Produced assets*
 - Fixed assets*
 - Dwellings*
 - Other buildings and structures*
 - Non-residential buildings*
 - Other structures*
 - Land improvements*
 - Machinery and equipment*
 - Transport equipment*
 - ICT equipment*
 - Other machinery and equipment*
 - Weapons systems*
 - Cultivated biological resources*
 - Animal resources yielding repeat products.*
 - Tree, crop and plant resources yielding repeat products*
 - Costs of ownership transfer on non-produced assets*
 - Intellectual property products*
 - Research and development*
 - Mineral exploration and evaluation*
 - Computer software and databases*
 - Computer software*
 - Databases*
 - Entertainment, literary or artistic originals*

Other intellectual property products
Inventories
Materials and supplies
Work in progress
Work in progress on cultivated biological resources
Other work in progress
Finished goods
Military inventories
Goods for resale
Valuables
Precious metals and stones
Antiques and other art objects
Other valuables
Non-produced assets
Natural resources
Land
Mineral and energy reserves
Non-cultivated biological resources
Water resources
Other natural resources
Radio spectra
Other
Contracts, leases and licences
Third party property rights
Marketable operating leases
Permissions to use natural resources
Permission to undertake specific activities
Entitlement to future goods and services on an exclusive basis
Of nominated legal persons
Of future production
Goodwill and marketing assets

The classification is designed to be consistent with that used in the SEEA for natural resources. The SEEA contains a further level of standard headings under each of the headings shown in the SNA. If more detail is held to be desirable in SNA tables, it is recommended that the supplementary items should follow the detail of the SEEA.

ANNEX NO:2

Financial assets and liabilities

Monetary gold and SDRs

Monetary gold

SDRs

Currency and deposits

Currency

Transferable deposits

Interbank positions

Other transferable deposits

Other deposits

Debt securities

Short-term

Long-term

Loans

Short-term

Long-term

Equity and investment fund shares

Equity

Listed shares

Unlisted shares

Other equity

Investment fund shares/units
Money market fund share/.units
Other investment fund share\units
Insurance, pension and standardized guarantee schemes
Non-life insurance technical provisions
Life insurance and annuity entitlements
Pension entitlements
Provisions for calls under standardized guarantees
Financial derivatives and employee stock options
Financial derivatives
Options
Forwards
Employee stock options
Other accounts receivable/payable
Trade credit and advances
Other accounts receivable/payable
Memorandum items: Direct foreign investment
Equity
Loans
Debt securities
Trade credit
Other

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